C&O blueprints $232 million, **five-year plan** for B&O if ICC approves control... p. 14

July 17, 1961

RAILWAY AGE WEEKLY

McCARTNEY LIBRARY
GENEVA COLLEGE

BIG FIGHT AHEAD! ... p. 9

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BEAVERS FALLS PENNA

Western Pacific

ICC opens hearings in San Francisco this week as SP, Santa Fe battle to gain control of 'Feather River Route.'

SOUTHERN PACIFIC

Charges Santa Fe seeks to extend its influence into new territory.

SANTA FE

Claims SP victory would remove competition in Far West.

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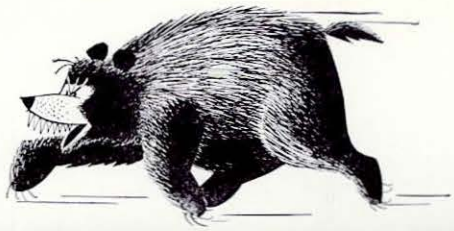

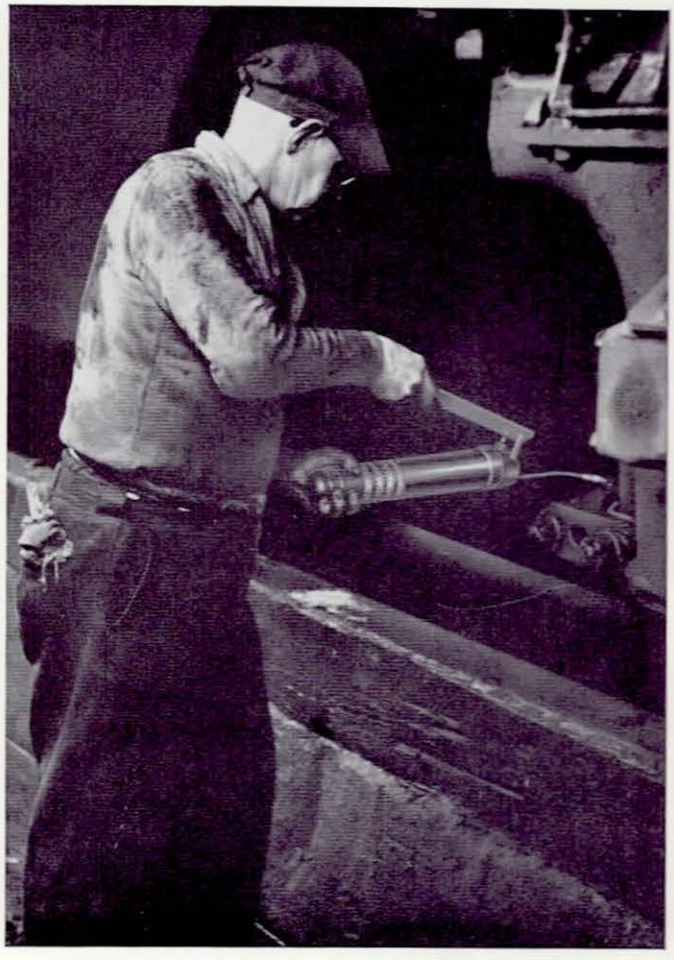

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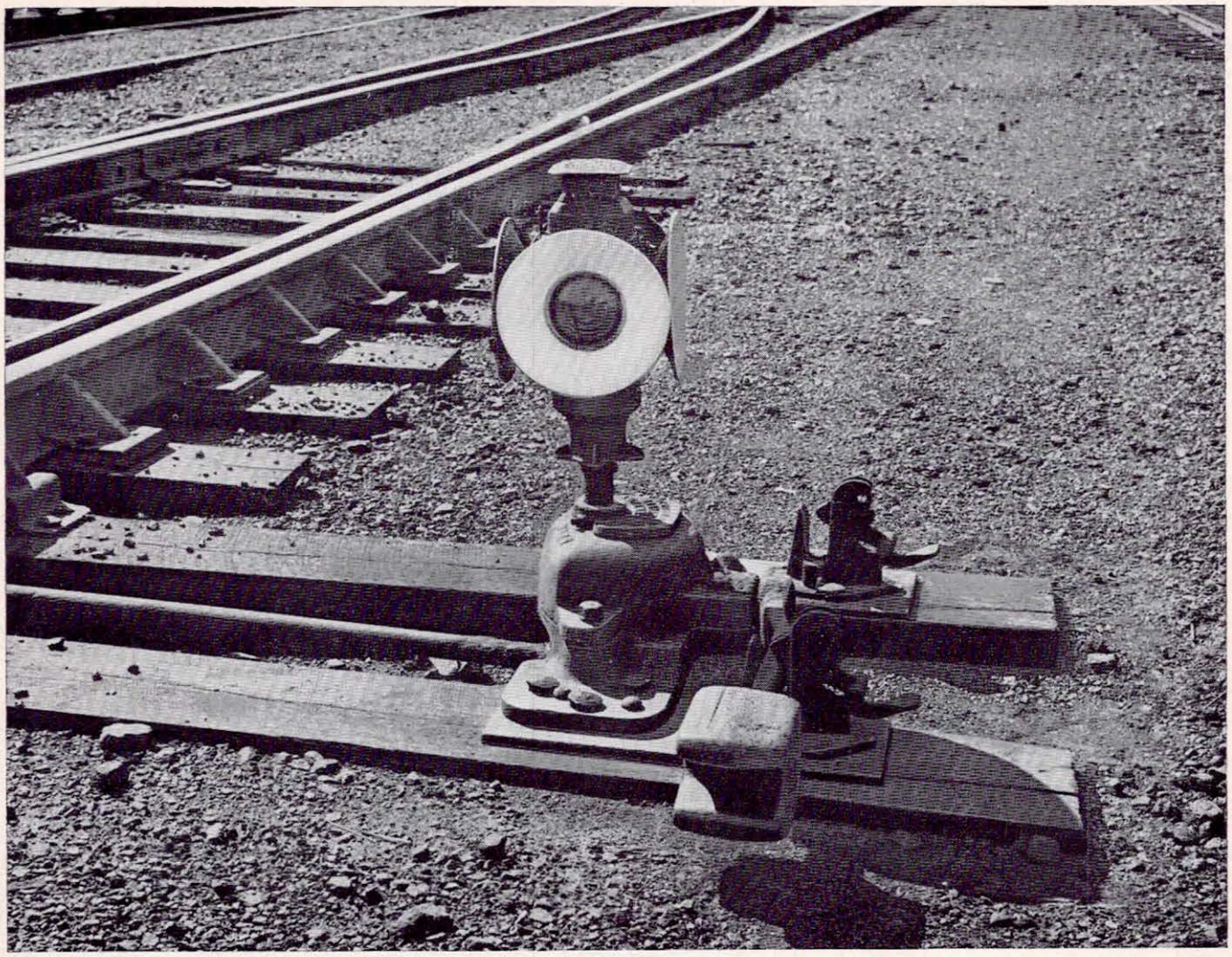

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RAILWAY AGE

WEEK AT A GLANCE

July 17, 1961 • Vol. 151, No. 3

SP, ATSF battle for WP control . . .

The fight reaches the ICC hearing stage in San Francisco this week. WP is backing ATSF, fears that an SP victory would give that road a "monopoly" ..... p. 9

NH bankruptcy hearing set Aug. 1

Present management will continue to run the road until a federal judge appoints one or more trustees. President Alpert says there's enough cash to operate through July p.10

B&O-C&O officers stress deferred-maintenance peril

Here, in detail, is what an officer of each railroad told the ICC would be necessary to transform the B&O into a modern, progressive transport instrument p.14

Modified crane lays 1/4-mile-long rails

The crane, modified by the Seaboard Air Line, can lay quarter-mile lengths of welded rail in less than 20 minutes, after preliminary work is finished p.19

US&S tests radio control of diesel switcher

The locomotive was satisfactorily controlled with the operator over 1,000 ft away. Under proper conditions, the range might be extended to more than half a mile p.22

Unmanned helper locomotive tried on West Coast

This, and other developments in the remote control of trains, was described at a recent conference of the American Institute of Electrical Engineers p.24

NYC plan: Equal ownership, then merger

Under Central's new proposal, presented to the ICC last week, NYC and C&O would divide B&O stock, which would be trusteed pending a three-way merger p.26

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Jules Geller Photo

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Charles L. Patterson

WEEK AT A GLANCE

REALCO starts reefer service . . .

REA Leasing Corp.'s new refrigerated-piggyback service utilizes a non-mechanical liquid-nitrogen cooling process developed by Linde p.33

The Action Page—NH an omen or a warning?

The New Haven's misfortune could prove to be an advantage, if it alerts Americans to the dangers of neglecting and mistreating their railroads p.38

Short and Significant

Class I railroad employment . . .

continued to increase in June, the ICC reports. At mid-month, 724,947 were employed—a 1.61% increase over the May figure, but 10.36% under the June 1960 figure.

Purchase of Central of Georgia . . .

by the Southern is no longer opposed by L&N, Atlanta & West Point, Seaboard, and Western of Alabama. They withdrew their objections at an ICC hearing in Atlanta.

A $4.5-million GM&O freight-car order . . .

will permit Pullman-Standard to reopen its Bessemer, Ala., plant. GM&O President Glen Brock said the order is being placed now "to bolster the general economy of the territory."

CPR is creating a 'Red Shield Fleet' . . .

of 4,000 box cars stencilled "Newsprint Service Only." The fleet will include 1,150 new cars CPR is acquiring this year and 2,850 cars which will be upgraded.

Purchase of 1,580 new subway cars . . .

is proposed by the New York City Transit Authority in its 1962 budget estimate. Cars would cost an estimated $185.8 million. (See page 31.)

Current Statistics

Operating Revenues	
5 mos., 1961	$3,622,223,954
5 mos., 1960	4,065,456,192
Operating expenses	
5 mos., 1961	2,982,789,099
5 mos., 1960	3,196,180,433
Taxes	
5 mos., 1961	392,280,975
5 mos., 1960	450,431,799
Net railway operating income	
5 mos., 1961	86,601,151
5 mos., 1960	273,539,570
Net income estimated	
5 mos., 1961	17,000,000
5 mos., 1960	195,000,000
Carloadings revenue freight	
26 wks., 1961	13,591,762
26 wks., 1960	15,689,790
Freight cars on order	
June 1, 1961	13,964
June 1, 1960	36,106
Freight cars delivered	
5 mos., 1961	15,640
5 mos., 1960	25,360

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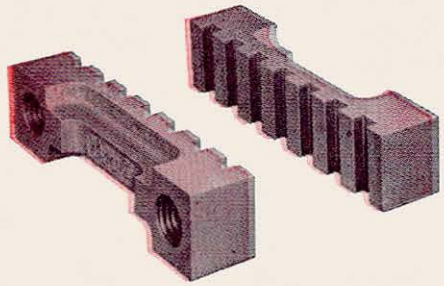

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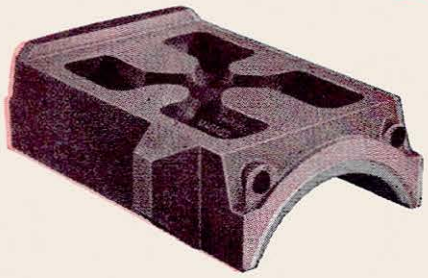
Provide maximum stabilization of entire journal box assembly—increases miles per hot box ten times

Bolted to the inside of the box, on both sides of the journal, Magnus R-S Journal Stops positively prevent excessive displacement of bearing, wedge or lubricator pad, even under severe humping, braking or road impacts. By stabilizing the entire journal bearing assembly they eliminate the major causes of bearing failures—increase miles per hot box *ten times;* miles per cut journal, *fifteen times!* In short, they cut maintenance and operating costs all along the line—double bearing and dust guard life, reduce wheel flange wear, extend the maximum safe period between repacks.



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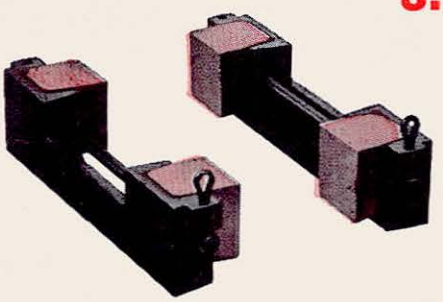
The Magnus flat-back bearing design provides the most economical means of stabilizing the journal box assembly, and has proved highly effective for many types of service. Its greater width, increased angle of journal contact and full-area contact with the flat wedge inherently limit the fore-and-aft movement of the journal within the box under road shocks and switching impacts. This restriction of movement protects the dust-guard, reduces loss of oil through enlarged dust-guard openings and tends to prevent spread linings in the bearing.



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The next big step toward better bearing performance will be the adoption of effective means of stabilizing the journal assembly—for this is the most economical way to reduce hot boxes. Magnus, the pioneer in journal stabilization, now offers you *three ways* to achieve this result at low cost. All have been approved by the AAR for test installations in interchange service. Ask your Magnus representative to discuss with you the most effective solution to this problem. Or write to Magnus Metal Corporation, 111 Broadway, New York 4, or 80 E. Jackson Blvd., Chicago.

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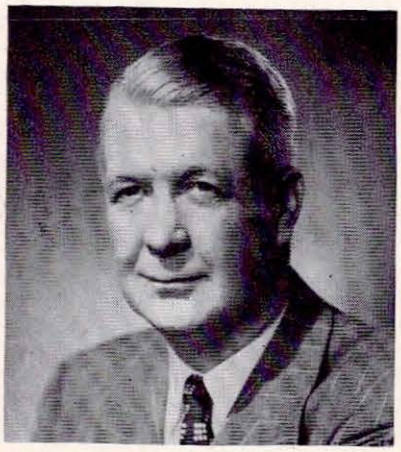


WP's Whitman says SP plan would create monopoly

SP's Russell denies charge, emphasizes savings

ATSF's Marsh fears SP will 'suppress competition'

SP, ATSF Battle for WP Control

► **The Story at a Glance: At 10 o'clock Monday morning, July 17, in the Sheraton-Palace Hotel in San Francisco, ICC Examiner Paul C. Albus is scheduled to hoist the curtain on a new saga of the West that promises to have a long and, perhaps, dramatic run. In ICC parlance, it has a fairly prosaic title. Popularly, it's known as: What's to become of Western Pacific?**

Southern Pacific wants small, prosperous WP. So does Santa Fe. And the cast of characters will include, in supporting roles, such notables as Great Northern (backing Santa Fe) and Union Pacific, Rock Island and Rio Grande (lined up behind SP). Missouri Pacific, Burlington and C&EI will also be on hand, mostly to see that their own roles don't suffer as the drama is played out.

The WP control case is expected to run about a month in San Francisco, after which it'll go on the road—most likely to Los Angeles, Portland, Seattle and Salt Lake City. Best guess is that 1962 will be on the wane before the first critical appraisal of the situation comes from the ICC.

If one railroad's romance with another were true-to-life—non-corporate life—the Western Pacific control case might be a simple thing. Santa Fe and Southern Pacific both covet the 1,190-mile California-Nevada-Utah line. WP has chosen Santa Fe's proposal.

But when one railroad tries to join with another—even if nobody minds—law requires that the ICC take the whole affair under study. And the Commission's power—to approve, disapprove or even suggest modifications of the original pairing-off proposals—is virtually unlimited.

It's this formal investigation that will begin in San Francisco July 17 when Examiner Albus bangs the gavel and gets the first session started. The schedule calls for testimony first from SP, then from Santa Fe. The San Francisco phase of the hearings is expected to last three weeks to a month. Similar sessions will be held later at various points in western territory—Los Angeles, Portland, Seattle, Salt Lake City. A wrapup session in San Francisco (including cross-examination of witnesses) is a likely finale to the formal presentation schedule. By a rough estimate, final submissions in the case could be expected by the end of 1961.

In the ATSF-SP struggle for control of WP, the ICC study will follow a prolonged and rather bitter period of infighting between WP's two suitors for support from neighboring railroads and other interested parties.

There's been nothing yet to equal the world-wide aspect of the NYC-C&O-B&O fracas—in which Central and C&O made pilgrimages to Switzerland to line up support from Swiss bankers. But Santa Fe and SP have made up domestically what they've missed in overseas operations, and WP territory is thoroughly marked with the footprints of Santa Fe and SP support-seekers.

By the most recent count (from SP), submissions to the ICC—letters, petitions, resolutions—total 1,818, with 1,204 favoring Southern Pacific and 614 backing Santa Fe. A breakdown of the figures, also from SP, shows it holding a 10-3 edge in number of other railroads (including short lines) giving support; a 480-287 margin in expressions of backing from governmental and other public bodies; and a 715-324 edge in support from shippers. Just what weight the outpouring of outside opinion will carry is a moot point.

As major railroads have lined up, SP is being backed by Union Pacific, Rock Island and Rio Grande; Santa Fe has won support from Great Northern and Western Pacific itself. Missouri Pacific, Burlington and C&EI are intervening, but aren't taking sides publicly—at least not yet.

(*Continued on page 34*)

NH Bankruptcy Hearing Set Aug. 1

► **The Story at a Glance: The immediate future of the New Haven Railroad will be determined following hearings beginning August 1. That is the date set by the federal district judge in New Haven for hearings at which he will name the trustee or trustees who will operate the carrier under reorganization. In the meantime, creditors are blocked from attaching company property, and, until August 1 at least, scheduled service continues.**

The New Haven, which has been forced in 1961 to depend on a series of government-backed loans to meet current obligations as they have come due, was turned down in the latest request for such a loan (RA, July 10, p. 10). The road then filed for reorganization under Section 77 of the Federal Bankruptcy Act.

"Our battle to save the New Haven from bankruptcy has been lost," NH President George Alpert announced on July 8, after receiving word that the Office of Civil and Defense Mobilization would not certify the loan sought by the New Haven as essential under the terms of the Defense Production Act.

The New Haven bankruptcy petition was filed with Federal Judge Robert P. Anderson in New Haven. Judge Anderson promptly approved the petition, thus giving recognition to the railroad's declaration that it is unable to meet its obligations. Under Section 77 of the Bankruptcy Act, the court appoints one or more trustees to operate the railroad under the court's supervision. After approving the bankruptcy petition, the court has 30 days in which to hold hearings at which security holders and other creditors can be heard. Date for these hearings, at which one or more trustees is likely to be named, was set as Aug. 1.

Until the trusteeship is decided, present management will continue running the railroad, while cash holds out. (Reorganization proceedings relieve the New Haven at this time from meeting interest charges, taxes and rents that come due, but the road must still meet its payroll and other operating expenses to continue operating.) Mr. Alpert indicated that cash would probably be available through July, but that outside assistance would be needed thereafter.

If funds can be found to meet operating expenses, it appears that operations under a trustee would continue at roughly the present level of services. That, at least, is the hope ex-

(Continued on page 32)

WATCHING WASHINGTON WITH WALTER TAFT

• **ONE ROUND** has been won by the Long Island in its fight against extension to its territory of Plan V piggybacking by other railroads. Plan V is piggyback service under joint-rate arrangements with truckers.

THE ICC HAS CONDEMNED Plan V rates, which have been in effect 1½ years, between points in Nassau and Suffolk counties, Long Island, and points in Trunk Line and Central Freight Association territories. The rates have been maintained by the Erie-Lackawanna, Nickel Plate and Chicago & Eastern Illinois in connection with All Freight Transportation Co., a trucker.

THIS IS THE CASE, No. 33270, which LI sought to have the Commission parlay into a general investigation of Plan V. That plea of the road was based on a contention that Plan V can be used by carriers to invade new territory, i.e., to circumvent provisions of the Interstate Commerce Act which forbid line extensions unless certificates of convenience and necessity are obtained from the Commission.

PLAN V "has the potential to effect unjust discrimination, undue preference and unfair and destructive competitive practices" in violation of the declared national transportation policy, LI also argued. It said, too, there are now no criteria whereby the legality of a Plan V operation can be determined.

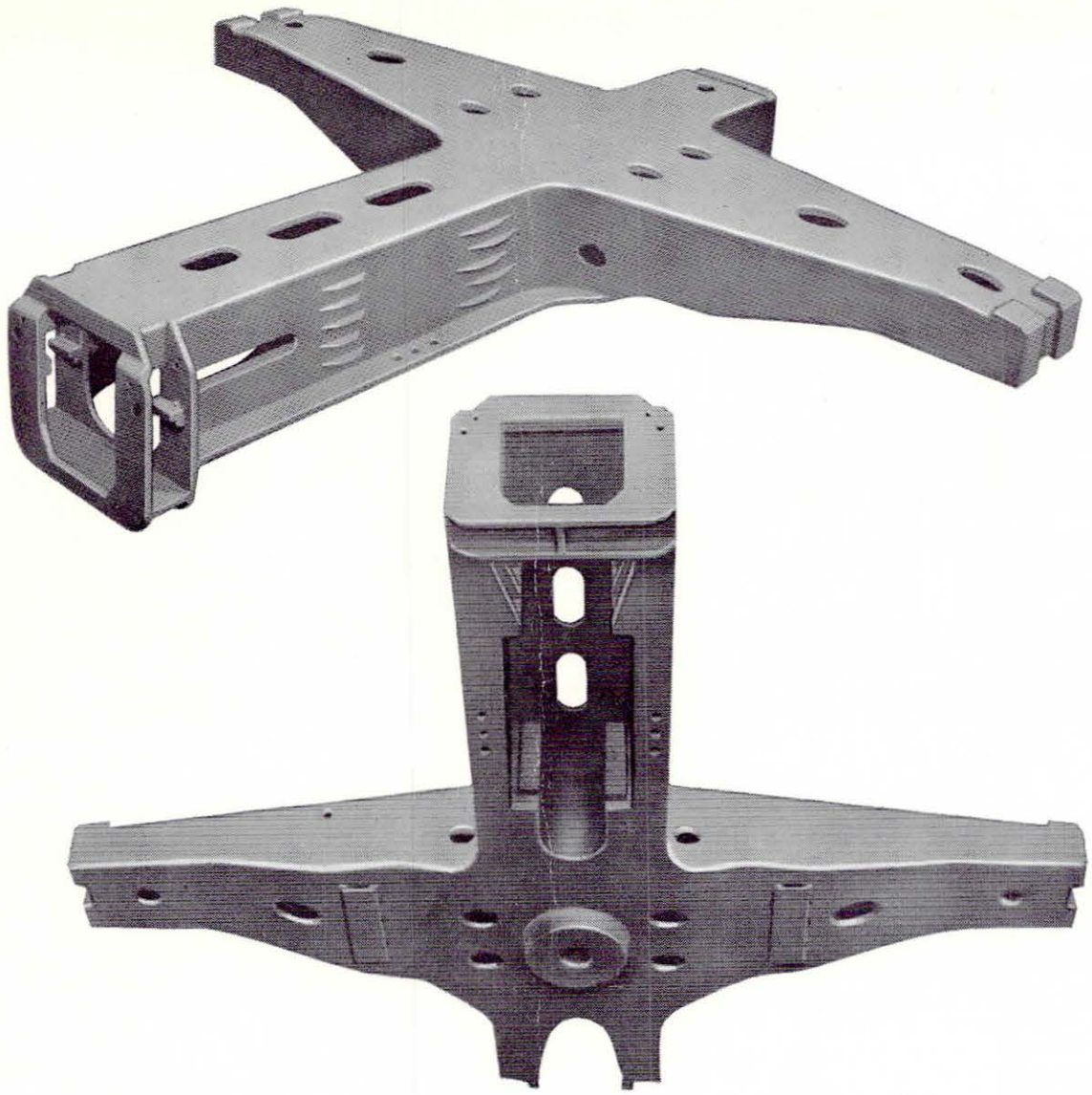
THE COMMISSION'S REPORT, by Commissioner Freas, did not get into the policy situation. Its condemnation of the Plan V rates in issue had a much narrower base—that the evidence of record was insufficient to support a finding that the rates were compensatory.

THE DECISION involved rejection of advice the Commission got from Examiner Edward E. Kobermusz's proposed report in the case. That recommended approval of the rates, for the reason, among others, that such favorable action would be in line with the ICC's "duty" to promote transport coordination.

• **BIG TRUCKS** and truck-trailers, with gross weights (including cargo) of 50,000 lb or more, now account for about one-tenth of all freight vehicles operated on main rural roads. Latest figures from the Bureau of Public Roads indicate that each 1,000 trucks or truck-trailer combinations operating in 1959 included 97 in the 50,000-lb-and-over group. That was nearly 2¾ times the comparable 1949 figure of 36. It was more than 32 times the 1936-37 average of 3.

VEHICLES of 30,000 lb and over increased in the same period from less than 5% of the total to about 20%. There were 194 of them among every 1,000 vehicles in 1959, compared with 43 in 1936-37.

• **THERE ARE THREE NEW LAWS** of interest to the railroads. They are the Highway Users Tax Act, which increases levies on trucks, but not to levels recommended by President Kennedy; the act which extends various excise taxes, including the 10% fare tax; and the act which establishes an office of international travel within the Department of Commerce.



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Why Not Visible Impact Tapes?

Loss and damage, as our correspondent this week makes clear, continues to be one of the major problems facing the railroad industry. Even with less cars handled and much less LCL, claims continue to be high.

One reason why it is difficult to reduce claims, says our correspondent, is that it is difficult to fix responsibility for damage. Modern rolling stock is tough—generally considerably more resistant to damage than is the shipment inside the car. Yet until the shipment arrives at destination and the car is opened, there is no easy way to tell if the shipment has been damaged unless the car also has been damaged.

Why not, suggests our correspondent, attach to all cars some kind of simple and cheap device that will give a visual record of high impact shocks at the time they occur?

With such a device, he says, it would be a simple matter for the general yardmaster or superintendent to fix the blame for rough handling on the crews responsible. And if this happens, our correspondent suggests, all crews will again have a personal incentive to practice better railroading.

●

To the Question and Answer Editor:

After having attended several freight-claim-prevention meetings . . . my thoughts have been centered on this most costly subject. Many meetings have been held, posters by the thousands have been put in yard offices, hump offices, depots and even down to the switchmen's shanties. Supervisors have been placed in various spots in both hump and flat yards to detect careless crews, hump retarder operators, etc. Road foremen and traveling engineers have ridden thousands of miles instructing engine crews in the art of smooth train handling and showing them how to avoid severe shocks to commodities and equipment. Shippers have been personally contacted, advised and instructed in the art of proper blocking, stowing, and packaging of freight. Cars have been equipped with damage-reducing equipment: car bodies that can slide on the center sill, cushion-type underframes, rubber draft gears, hydro-cushion underframes, etc.

With all the equipment and vast sums of money spent we have the same old headache we always had and, above all, more expense. Remember, railroads of today are not handling nearly the amount of cars and LCL they did 15 years ago, yet, according to AAR reports for 1959, railroads paid out $115,618,244 in loss and damage claims.

Of course, this was not all due to rough handling or overspeed impacts. Just for argument, let's cut this figure in half and we still have $57,809,122, which is quite a sum. How many dissatisfied consignees looked around for other means of transportation? Can anyone estimate this? What was the cost of repairs to equipment and rolling stock, or the cost of delays? Also, what was the cost of increased personnel to handle the OSD sheets? With all our administered medicine to cure this patient, he has only been given an aspirin to relieve the pain.

Let's go back 40 years. At that time we had plenty of wooden sills: center, end, draft, and side. If a car struck a solid cut, or one was placed on the end of a solid cut and was hit with another draft, the damage was right there. Because of frail wooden construction of the car (as we would call it today) switching operations would be halted for a while on that track and possibly the entire ladder would be tied up. Usually the coupler plus the draft sills and other parts were found on the ground. The evidence was right there. All the yardmaster or crew had to do was take the car number, clean up the debris, move the car to the shop track and advise the boys to report to the GYM or superintendent before leaving. In some cases, the commodities might not have been too badly damaged, simply because the big container (the car) gave up the ghost first.

Today with good high-tensile steel draft gears, couplers, corrugated steel ends, heavy inside end and side linings, and the entire container (car) constructed of the best steel, a loaded boxcar can hit against a solid cut of cars at 15 mph, and the only time the damage will be visible is with the car loaded with a liquid. If the car passes through three or four terminals, who can say who did it and where? There is no visible damage until the consignee opens the door four or five days later. The consignee takes a look, shuts the door and calls the agent. The agent looks and calls the claims agent, who in turn looks, then goes to work. Say the car made 2,000 miles, was handled by four or five roads and went through as many yards and connections. The question still is, "Who did it?" Each road then pays its part of the claim according to revenue allotted.

There is a remedy for this. Naturally it will cost money, but $57,000,000 is also money. We should give some thought to trying out a permanent impact recorder on high-class freight cars. These recorders could be made a piece of permanent equipment so applied to the car's structure that at least a foot or 18 in. of tape could be viewed by any interchange inspector or other person through a clear plastic lens placed in direct view on the side of the car. The 18 in. of visible tape should cover a 24-hr period. With proper supervision, any damage could be pinned to the guilty part even before the consignee opens the door.

I think in many cases we or they would then know "Who did it?" Is it worth a try? Don't forget that roller bearings are coming fast.—*M. M. Ux, traveling engineer, Akron, Canton & Youngstown.*

A forum for railroaders who want to explore questions of importance to their industry, this department welcomes both questions and answers from readers at all levels of responsibility in the industry and associated fields. We'll pay $10 to any reader submitting a question that forms the basis for a column discussion. Address correspondence to Question and Answer Editor, Railway Age, 30 Church St., New York 7, N. Y.

SIMPLIFIED PAPERWORK

To the Question and Answer Editor:

Referring to your request for questions in regard to the American railroads, the idea that has entered my mind is how postage stamps can carry a box around the world when it takes an accumulation of paper the thickness of Railway Age to move one railroad box car from Chicago to California. It would appear that a more simple method could be used for moving freight.—*C. O. Bryant, division engineer, Chicago, Rock Island & Pacific.*

Hennessy AR 12 Dust Guard Oil Seal

The new Hennessy AR 12 Dust Guard Oil Seal is the first completely self-aligning seal for journal boxes. It's design effectively keeps dust and moisture out of the box and establishes a highly efficient seal against journal oil loss. Top quality construction and rugged design assures efficient operation between wheel changes regardless of time interval. Even after extensive testing in actual operation the Hennessy AR 12 Dust Guard Oil Seal showed no visible signs of wear. Write for more information today. Bulletin No. 100.

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C&O's Dunn

B&O's Bertrand

B&O-C&O Officers

What is the cost to a railroad of being forced by low revenues to defer maintenance year after year?

When a railroad gets in that kind of trouble, what sort of help is needed to bail it out?

Answers to these questions—as they apply to the Baltimore & Ohio and to the Chesapeake & Ohio's plan to rescue its ailing neighbor—turned up at the Interstate Commerce Commission's hearings on C&O's application to control the B&O.

Here, in detail, is what an officer of each railroad told the Commission would be required to transform the B&O into a modern, progressive instrument of transportation.

The Baltimore & Ohio's basic requirement is for an overall modernization program, says M. I. Dunn, senior vice president of the Chesapeake & Ohio.

"This need," Mr. Dunn told the Interstate Commerce Commission, "is particularly acute in the areas of centralized traffic control, better yards and terminals, more ample tunnel clearances, modern equipment for mechanized car and locomotive repairs and maintenance of way, improved pier facilities and bridge reconstruction."

The B&O, Mr. Dunn added, also is in a "precarious position with respect to its system car supply. With a very high bad order ratio and with more than 41,000 high-age, high maintenance cars that ought to be retired during the next five years, car supply on the B&O will become critical with any upturn in the volume of business."

Moreover, Mr. Dunn said, "with any increase in traffic, B&O is going to run short of motive power unless its repair program is accelerated."

Details of a C&O five-year program for rehabilitating the B&O were spelled out by Mr. Dunn. The cost of the program, he said, "is estimated at $232,003,576." After allowing 5% as a carrying charge, the net saving for the entire program was estimated at $45,168,960.

Mr. Dunn blueprinted the five-year program during ICC hearings on the C&O's application to control the B&O (RA, July 3, p. 32).

"Maintenance of way and structures on the B&O is definitely substandard. . . . There is deferred maintenance on the B&O. B&O officers have estimated the minimum volume of rail, ballast and cross-ties that would be required to arrest the deterioration that has resulted from inadequate maintenance in the past several years. This quantity of roadbed materials, however, would only forestall further deterioration. And there is no assurance that B&O's own resources will permit even this. The lack of adequate ballast sections is especially costly as it results in excessive derailments and shortened service life of rail and other track material.

"In recent years, the B&O has not adhered to annual maintenance of way or maintenance of equipment budgets. This makes it impossible to maintain the railroad efficiently and economically, due to lack of knowledge of how much money will be available for maintenance expenditures on an annual basis. Monthly maintenance allowances often do not reach the field until after the first of the current month. Programing and scheduling, without which productive maintenance cannot be achieved, are necessarily absent." . . .

In cars, 9,102 units would be given program repairs. Over 42,000 cars would be retired, and 18,251 cars would be built, at a total outlay for the car program of $175,568,696, plus another $1,317,000 for related miscellaneous improvements in mechanical facilities, for an aggregate outlay of $176,885,696. (see table on page 16).

"We believe this program can be carried out in five years," Mr. Dunn said, "and it will be our purpose to schedule its completion on that basis so as to bring the fleet up to par with dispatch, but consistent with orderly programming of the work. . . . This is a sound, feasible program that will get the job done—the cars will, in fact, undergo the needed heavy repairs and the new cars will be provided to meet the requirements of B&O shippers."

On motive power, Mr. Dunn said, "We are in a position to provide definite assistance to B&O in fulfilling its power requirements." In place of a B&O plan, if unaided by the C&O, to replace 28 1,350-hp units with 21 remanufactured units at an expenditure of $3,000,000, C&O proposed that B&O lease from the C&O 26 1,500-hp road freight units from a pool of 48 surplus C&O units. "This will permit B&O to avoid a capital outlay of some $3,000,000, to add to its working capital approximately $126,000 in cash to be realized upon scrapping 28 FT units, and to save an estimated $30,000 per year in maintenance expenses," Mr. Dunn said. "And C&O would realize a return on diesel locomotives that are now standing idle."

On B&O's need for an overall mod-

Summary of C&O Proposal First Five Years

YEAR	NET CASH OUTLAY MECHANICAL & ROADWAY	ESTIMATED SAVING	5% INTEREST	NET SAVING
1st	$ 50,281,127	$ 2,292,400	$ 1,257,028	$ 1,035,372
2nd	53,180,298	7,849,830	3,843,564	4,006,266
3rd	47,948,029	14,728,981	6,371,772	8,357,209
4th	41,972,607	23,191,025	8,619,788	14,571,237
5th	38,621,515	27,833,517	10,634,641	17,198,876
5-Year Total	$232,003,576	$75,895,753	$30,726,793	$45,168,960

Stress Deferred Maintenance Cost

Roadway Capital Projects Proposed for B&O by the C&O

PROJECT NO. LOCATION — DESCRIPTION OF PROJECT	NET CASH OUTLAY	ESTIMATED ANNUAL SAVINGS	RATIO ANNUAL SAVINGS TO NET CASH OUTLAY
I. Yard Improvements			
1. Baltimore, Md.—Curtis Bay Yard Improvements	$ 2,235,000	$ 496,500	22%
2. Cumberland, Md.—Eastbound Yard Improvements	1,961,592	1,136,200	58%
3. Grafton, W. Va.—Yard Improvements	2,608,144	544,300	21%
4. Fairmont, W. Va.—Yard Improvements	768,340	228,000	30%
Sub-Total	$ 7,573,076	$ 2,405,000	32%
II. Improvement of Tunnel Clearances			
5. Baltimore to Philadelphia—Improved Clearances	$ 139,701	$ 80,160	57%
6. Parkersburg Sub-division—Improved Clearances	6,229,060	1,820,800	29%
Sub-Total	$ 6,368,761	$ 1,900,960	30%
III. Coal and Ore Handling Facilities			
7. Baltimore, Curtis Bay—Modernization of Coal Handling Facil.	$ 2,669,200	$ 417,500	16%
8. Rochester, N.Y., Charlotte Dock—New Coal Handling Facil.	2,090,360	1,358,000	65%
9. Lake Erie Port—New Ore Handling Facilities	6,600,000	.....	....
Sub-Total	$11,359,560	$ 1,775,500	16%
IV. Traffic Control Systems			
10. Harpers Ferry, W. Va. to Patterson Creek, W. Va.—T.C.S.	$ 795,855	$ 304,113	38%
11. Cumberland, Md. (Viaduct Jct.) to Confluence, Pa.—T.C.S.	1,296,560	228,873	18%
12. McKenzie, W. Va. to East Grafton, W. Va.—T.C.S.	1,778,537	270,362	15%
13. Wheeling, W. Va. to Moundsville, W. Va.—T.C.S.	397,541	156,852	40%
14. Belpre, O. to Cincinnati (Ivorydale Jct.), O.—T.C.S.	1,536,466	333,558	22%
15. Willard, O. to St. Joe, Ind.—T.C.S.	248,451	439,763	177%
16. St. Joe, Ind. to Pine Jct., Ind.—T.C.S.	687,327	544,954	79%
17. Washington, Ind. to East St. Louis, Ill.—T.C.S.	2,020,421	669,696	33%
Sub-Total	$ 8,761,158	$ 2,948,171	34%
V. Track and Bridge Improvement, Roadway Machinery, and System Servicing Facilities			
18. Rail	$ 4,600,000	$ 450,000	8%
19. Ballast	3,200,000	.....	....
20. Bridges	7,239,825	.....	....
21. Roadway Machinery	3,000,000	750,000	25%
22. Freight Car Spot Repair Facilities	540,000	269,100	50%
23. Locomotive Sanding Facilities	595,000	261,672	44%
24. Power Plant Modernization	1,180,500	705,691	60%
25. Hot Box Detectors—15 Locations	500,000	180,000	36%
26. Rail Oilers—250 Locations	200,000	75,000	37%
Sub-Total	$21,055,325	$ 2,691,463	13%
Grand Total	$55,117,880	$11,721,094	21%

ernization program, Mr. Dunn described a plan that he said would "very materially aid in the solution of many of B&O's immediate problems and which will provide the basic improvements needed to make the B&O a modern efficient railroad. Under this program, these improvements would be completed within five years. The program will require an estimated net cash outlay of $55,117,880 over the five-year period."

Mr. Dunn's proposal included four yard improvement projects, two projects for the enlargement of tunnel clearances, new coal and ore handling facilities, eight CTC projects plus track and bridge improvements, roadway machinery, and system servicing facilities, as shown in the table on page 15.

To bring the B&O up to an acceptable standard of maintenance, Mr. Dunn said, "should require laying about 40,000 tons of new rail, approximately 615,000 cross ties, and the application

'Standards of Maintenance . . . Have

The B&O's problem was outlined to the ICC by Charles E. Bertrand, the road's vice president, operations and maintenance.

Limiting his testimony principally to "the condition of the B&O property," Mr. Bertrand spoke first of "the condition of B&O's right-of-way, including the track structure, and its buildings and other fixed property items. . . .

"Standards of maintenance required for efficient performance have not been observed on the B&O for several years," Mr. Bertrand said. "This has been particularly true during the period 1958 through 1960. In describing the resultant deferral of maintenance, I shall divide my statement among (1) subgrade, (2) ballast, (3) ties, (4) rail, (5) other track material, (6) work trains, (7) bridges, buildings and other miscellaneous structures, and (8) signals."

Before going into specifics, Mr. Bertrand noted that "by 1940, the B&O had gone through 10 years of deep depression, during which time inadequate amounts of materials, particularly rail, ties and ballast were applied," and that, when added revenues became available during the war years, inferior materials often had to be applied.

As of Dec. 31, 1959, the B&O operated 11,446.67 miles of track (5,911.21 road miles), Mr. Bertrand said, with 10,725.17 miles of track (5598.23 road miles) being maintained by company forces. Of this, 5,598.23 miles were first main track, 1,427.77 miles second main track, 153.28 miles other main tracks, 781.12 miles passing tracks, 634.17 miles way switching, and 2,130.60 miles yard switching.

"In many places," Mr. Bertrand said, "the sub-grade originally provided for B&O track was too narrow when gaged by modern standards. We have made efforts at widening it, the purpose being to reduce maintenance costs by improving sub-grade and drainage conditions. But the work, in large part remains to be done."

B&O in 1957 purchased approximately $300,000 worth of heavy bulldozers, rock drilling and hauling equipment and similar machinery as the first major step toward a roadbed-improvement program. An additional $400,000 worth of equipment and tools was purchased later.

"This equipment," Mr. Bertrand said, "is now idle because of insufficient funds. We are thus foregoing the long-range benefits to be derived from reduced maintenance costs account of improved sub-grade and drainage conditions."

Pumping and muddy ballast conditions exist at several locations on the B&O, Mr. Bertrand said, as a result of three causes: contamination from trains (leaking of the fine coal from hopper cars and heavy locomotive sanding), lack of sufficient ballast under ties and inadequate sub-grade drainage.

"Sub-grade and ballast conditions have a direct bearing on the expected service life of ties and rail," Mr. Bertrand testified. "A wet soft condition under ties will cause excessive wear and splitting of the ties. It will also cause rail to become permanently surface bent to such an extent that track raising on good ballast is not effective. The service life of the rail is thus seriously reduced."

Describing deferred ballasting, Mr. Bertrand noted that between 1940 and 1948, B&O had used an average of 1,224,405 tons of ballast a year. From 1948 through 1953, the average was 940,000 tons. From 1954 to 1960, ballast purchases were reduced to 475,000 tons annually.

"During the period 1940 to 1953," Mr. Bertrand said, "it was possible, by hand methods alone, to raise an average of 600 to 700 track miles per year, with four to six inches of ballast put under the ties. But because of maintenance conditions on certain segments of the B&O line where attention had to be concentrated, there followed a sharp decrease in ballast consumption on the rest of the system, a decrease that has been accentuated in recent years because of lack of funds.

"Beginning in 1955, power ballasting machines were used to tamp practically all of the track raised, and it was pos-

Mechanical Expenditures Proposed for B&O by C&O

FREIGHT CARS—FIRST 5 YEARS		
Program Repair 9,102 Cars		$ 37,404,700
Build 18,251 Cars		129,682,846
Allowance for cars destroyed and retired		32,000,000
		$199,087,546
Less Net Salvage		23,518,850
Total outlay for Freight Cars		$175,568,696
MISCELLANEOUS SYSTEM ITEMS		
Total Required First 5 Years		$ 1,317,000
GRAND TOTAL REQUIRED FIRST 5 YEARS		$176,885,696
BY YEARS		
1st Year	$ 35,377,140	
2nd Year	35,377,139	
3rd Year	35,377,139	
4th Year	35,377,139	
5th Year	35,377,139	
5-Year Total	$176,885,696	

of some 800,000 cubic yards of ballast, in each of the first five years. This, of course, is greatly in excess of the amount of rail that has gone into the B&O in recent years. . . . With these proposed quantities of track material our plans indicate that B&O's estimated expenses for maintenance of way and structures would be at the level of $46,000,000. . . .

"In arriving at this estimate," Mr. Dunn said, "we have considered that C&O methods of budget control and planning of maintenance of way work will convert the equivalent of $1,000,000 now wasted annually on the B&O to productive maintenance work; and that the B&O's use of expensive work trains will be materially reduced if programmed and controlled budget methods are adopted. . . .

"Efficient programming," Mr. Dunn said, "is the prime essential for productive maintenance of way."

Not Been Observed' — Bertrand

sible to surface raise as little as 1½ in. as compared to hand raises of four to six inches. These light lifts produced satisfactory track for a period of one to three years, depending on the density of traffic, but because of the ballast condition previously described, the surface would not hold. Much of this raising was done (in some instances two or three times) without application of any additional ballast.

"Track raising without sufficient ballast only produces a temporary cure. The ties become placed on top of a more-or-less ridge, with insufficient ballast at the ends of ties to hold the line and surface. In many cases, the vibration of trains rattles the ballast from under the tie ends, creating a center-bound track condition which, if allowed to continue, will break cross ties in the center of the track. Also, the movement of track further aggravates the ballast situation by pumping mud up from the subgrade."

B&O has approximately 28,250,000 cross ties, Mr. Bertrand said. If all have an average 30-year service life, 940,000 ties a year would need to be renewed to avoid maintenance deferral. The service-life expectation of 30 years is reasonable, Mr. Bertrand said, "providing ties have been properly seasoned and treated before installation."

Between 1940 and 1961, 19,815,638 ties were installed on the B&O. "At this rate," Mr. Bertrand said, "renewals have been made on the basis of 28.8 years of service life. But the cross tie situation on the B&O is not as good as this record would suggest. The major reason for this is that from 1940 through 1952 there were roughly 15,000,000 cross ties installed with insufficient seasoning, and this greatly shortened their service life." Almost 5,000,000 of these ties are still in track, Mr. Bertrand said. "Such as are not removed through replacement will have to be replaced short of the expected life of treated ties."

B&O has 7,180 miles of main track and 3,545 miles of side and yard tracks, Mr. Bertrand said. "In our judgment, it is necessary to lay new rail on approximately 3,000 miles of main track, and repair rail released therefrom will support the remaining 7,725 miles of main, siding and yard tracks."

For a 10-year period, the B&O officer said, new rail renewals averaged 35,733 tons annually. "However, over the past three years, 1958 through 1960, we averaged only 12,840 net tons (54.46 track miles) per year. In 1960, we laid approximately 6,700 net tons (28.28 track miles) of new rail—the least amount laid on the property in over 40 years."

Noting that "poor rail conditions . . . contribute to derailment expenses," Mr. Bertrand said the average age of rail in all B&O main tracks is over 25 years (although in new rail territory, it is 12.8 years). Approximately 3,700 track miles of rail in main tracks are of 100-lb section, or lighter, he said. Also, there are 331 track miles of 112-lb and 131-lb rail which is "non-controlled cooled" and thus likely to develop internal flaws faster than modern rail.

Mr. Bertrand described two developments that would promote better rail maintenance in the future. Heat treated rail (at about $185 a ton, rather than $120 a ton for ordinary rail) is being used increasingly in heavy curvature territories, where it has a much longer service life than conventional rail. Also, rail oilers are coming into use, Mr. Bertrand said. "Our recent tests on these devices have indicated they will prolong the service life of rail by at least three times. . . . It is planned to expand the use of both heat-treated rail and curve oilers where needed.

"Bridge structures on the property, although sound structurally, require miscellaneous repairs and application of protective coatings," Mr. Bertrand continued. "The cost of applying both steel and masonry coatings is relatively small when compared to replacement costs of entire structures.

"Buildings are in need of general repairs and painting. A uniform program for this work can save considerable in replacement costs. There are also many unneeded structures on the railroad. In many instances, a nominal expenditure of money could consolidate facilities and eliminate buildings. In my view such a program should be vigorously pursued. A reorganization of bridge and building forces, extension of seniority districts and equipping them with the necessary machinery and equipment would be necessary to effect an economical program for both bridges and buildings."

B&O's signal and interlocking system was improved by a general rehabilitation program from 1935 to 1941, Mr. Bertrand said. But during the war years, shortages of materials and equipment made necessary "the rebuilding in kind of mechanical interlockers that were in bad condition."

B&O's first CTC project (now completed) was begun in 1958 to permit retiring one of the main tracks in double track territory. A second CTC project, begun in 1959, is 88% complete.

"A traffic control installation, New River Junction, Ohio, to Dayton, Ohio, is being progressed on a limited basis," Mr. Bertrand said. "Traffic control installations between Gaston Jct. and Grafton, W. Va., and Glenwood to Gilkeson, Pa., are being held up because of lack of funds."

Mr. Bertrand added that B&O had 59 mechanical interlockings placed in service between 1900 and 1930. Twenty-nine of these would be eliminated if the CTC program proposed by Mr. Dunn could be carried out. "Modernization of the remaining 30 plants should be undertaken," Mr. Bertrand said.

"There still exist 653 semaphore signals which were installed during the years 1911 to 1923. The 450 of these which would not be eliminated by the CTC program should be replaced.

"There are a large number of signal bridges in need of heavy repair. These should be replaced with bracket masts, which would materially reduce maintenance costs."

"The rehabilitation problem confronting us is of large proportion," Mr. Bertrand emphasized. "In short, we have, because of stringent financial circumstances, determined our maintenance expenditures by reference to revenues rather than to needs. This has resulted

in deferral of maintenance work and the extent of the deferral has been widened by the less efficient methods forced on us by our inability to carry through to a conclusion such projects as were planned. I refer here to the fact that our revenue situation changed from month to month, so it was necessary to change, from month to month, the initial allotments of money on which our planning had been based."

An attempt to determine how much maintenance money should have been spent on the B&O in the past three years would relate only to the past and would not represent the cost of rehabilitation that is required, Mr. Berstrand said. "Our problem is not the past, but the present and the future. What we must concern ourselves with is how to meet the exigencies of today and tomorrow and as far ahead of that as we can intelligently project our thinking."

In formulating a B&O program for "rehabilitation of its road property," Mr. Bertrand said, "I would have to keep in mind the necessity that expenditures be kept in reasonable relation to revenues." With revenues not likely to rise above the 1958-60 average, Mr. Bertrand said, "it is apparent that we cannot restore maintenance expenditures to what I have referred as 'normal' levels, unless we are willing and able to incur net income deficits."

If the B&O were to continue "with no greater expenditures for maintenance than during the past several years," Mr. Bertrand said, "it would be necessary to reduce speeds on much of our main line territories, where in most cases speeds of 75 mph are and should be possible. Such reductions might have to be to as low as 50 mph. It might be possible to exist for a period of from three to five years with this sort of program and not encounter too serious difficulties on derailments as far as main line is concerned. However, so far as the heavier-used branch lines are concerned, by the end of 1962 we could easily be experiencing a considerable increase in derailments because of poor tie and rail conditions."

"Our derailment costs from 1955 through 1960 for all track causes—such as broken rail, irregular elevation, etc. —amounted to $3,143,436 as compared to $377,233 for the C&O. These figures represent damage to track and equipment only and do not include damage to lading. Of greater import, although impossible of monetary measurement, would be the damage to our competitive position."

To arrest the deterioration process in B&O's right-of-way, Mr. Bertrand said, would require annual application of materials in the following amounts:

- 25,000 tons of new rail, coupled with the relay rail generated thereby.
- 362,500 cubic yards of ballast.
- 615,000 cross ties.

This would require annual maintenance of way expenditures of $45,000,000, Mr. Bertrand said, just to "hold the line." Even this amount, he added, would be "$3,500,000 in excess of the amount ($41,500,000) to which we would be restricted were we to avoid a net income deficit."

At the end of 1960, B&O owned 86,180 cars, Mr. Bertrand said. Of these, 22,037 were in bad order. (Bad order cars included 14,386 of the 41,419 open top hoppers, 4,358 of the 27,873 box, 3,132 of the 13,353 gondolas, 70 of the 983 flats, and 91 of the 2,352 covered hoppers.)

"More importantly," Mr. Bertrand added, "it is to be observed that the B&O fleet includes [a large] number of cars which have run out their service life (by reason either of age or obsolescence)." Only 11,455 hoppers out of 41,419 have service life remaining. For box cars, the figures are 15,193 out of 27,873; for gondola, 5,432 out of 13,553; for flat, 934 out of 983; and for covered hoppers, 2,004 out of 2,352. For the fleet as a whole, only 35,018 out of the total 86,180 have service life remaining.

For the period 1958-60, Mr. Bertrand estimated the B&O's car requirements to have been 35,150 open top hoppers, 24,641 box, 8,742 gondolas, 983 flats, and 2,352 covered hoppers.

"It appears that in the 1958-60 period we were in the position of attempting to keep in repair roundly 50,000 cars which it would have been more economical to retire and replace," Mr. Bertrand said." This attempt necessarily had a serious impact on our maintenance expense situation in that repairs effected at considerable cost have served to make the car serviceable for only a limited number of loadings—in many cases only one loading. In my judgment, this excessive bad order situation has been reflected in annual maintenance expenses to the extent of roughly $8,000,000 on the average over the past three years. Such expenses would have amounted to $12,000,000 annually had we not been able to supplement our fleet of serviceable cars by the use of foreign cars. I have not attempted to measure the effect of this on our per diem payments, but am satisfied that it caused a substantial increase therein."

In estimating needs for the future, Mr. Bertrand started with the assumption that car requirements would be the same as for 1958-60. The problem is, he said, "to find a way to build our fleet up to requirements, starting from the 35,018 cars which have not already run out their service life." This would require 33,645 cars, he said: 20,490 open top hoppers, 9,448 box, 3,310 gondola, 49 flat and 348 covered hoppers.

If the cars were to be built in B&O shops—which Mr. Bertrand said would be more economical than to purchase them from car builders (except for covered hoppers and flat cars)—the net out-of-pocket cost of the 33,248 cars would be roughly $215,000,000, he said. The 348 covered hoppers and 49 flat cars would cost an additional $4,618,000.

"Rehabilitation of our freight car fleet would reduce our annual freight car maintenance expense by a minimum of $12,000,000," Mr. Bertrand asserted. "There would be other benefits, both in additional savings (e.g., per diem car hire costs), and in enhancement of our ability to compete for business, which cannot now be measured in money."

Except for 28 FT diesel-electrics that need to be replaced, Mr. Bertrand said, "I believe B&O's power is sufficient to handle the volume of business experienced in the years 1958-60. I feel, however, that any significant increase in business would necessitate an increase in our locomotive fleet."

The 28 1,350-hp units that should be replaced, Mr. Bertrand said, were purchased in 1942 and 1943 (except four of the group that were purchased second-hand from New York, Ontario Western in 1957). These could be replaced with 21 remanufactured 1,800-hp road switcher units, Mr. Bertrand said, for a net cost of $2,119,280. Annual maintenance savings would be $207,200 if the replacement occurred.

"B&O's average annual expenditures for maintenance of equipment in the three-year period 1958-60 amounted to $71,500,000," Mr. Bertrand said. "Assuming a continuance of operations with the locomotive and car fleet presently in service, the maintenance necessary to move traffic of the volume moved in 1958-60 would entail expenditures of $81,000,000 in each of the five years of the projection [proposed by the C&O] that is 1962-66. The program I have outlined for replacement of worn-out and obsolete cars and locomotives over that period would permit the performance of adequate maintenance with annual expenditures trending downward from $82,300,000 in 1962 to $70,900,000 in 1966, or an annual average of $76,100,000.

The testimony he presented, Mr. Bertrand said, "outlined B&O's basic needs. The availability of funds and the methods of obtaining them are the responsibility of others . . . I am convinced that the program outlined herein is the minimum required for efficient operation and maintenance."

Crane Lays 1/4-Mile-Long Rails

Rails welded into quarter-mile lengths are being laid in track by the Seaboard Air Line with the aid of a specially modified rubber-tired crane. The modified crane can lay a quarter-mile length of rail in less than 20 min, after preliminary work has been completed.

The machine used, which was modified by the railroad, is an Austin-Western 7-ton hydraulic crane equipped with four-wheel drive and a telescoping hydraulic boom. The unit had already been fitted by the SAL with flanged wheels so it could be operated on track in connection with bridge-repair work.

To adapt the crane for laying long rails, the wheels were removed from one side and replaced with two roller-equipped rail guides, one in the front, the other at the rear. The flanged wheels on the other side were replaced with double-flanged wheels.

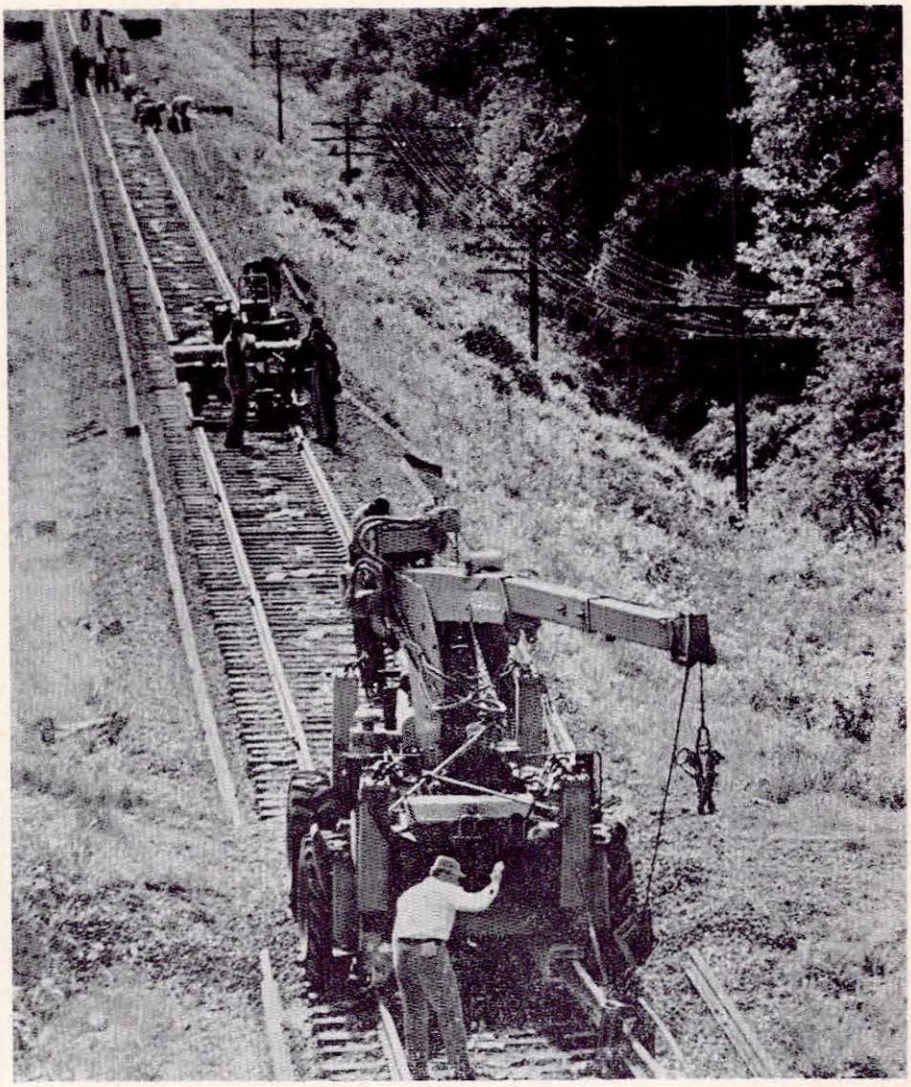
To lay a length of rail that has been unloaded alongside the track, the crane is positioned on the track with its wheels resting on the ends of the ties. With the aid of tongs hung from one of the crane's two boom lines, one end of the rail is inserted into a threader hung from the other boom line, and through the front and rear guides under the crane.

Rail Moves Through Threader

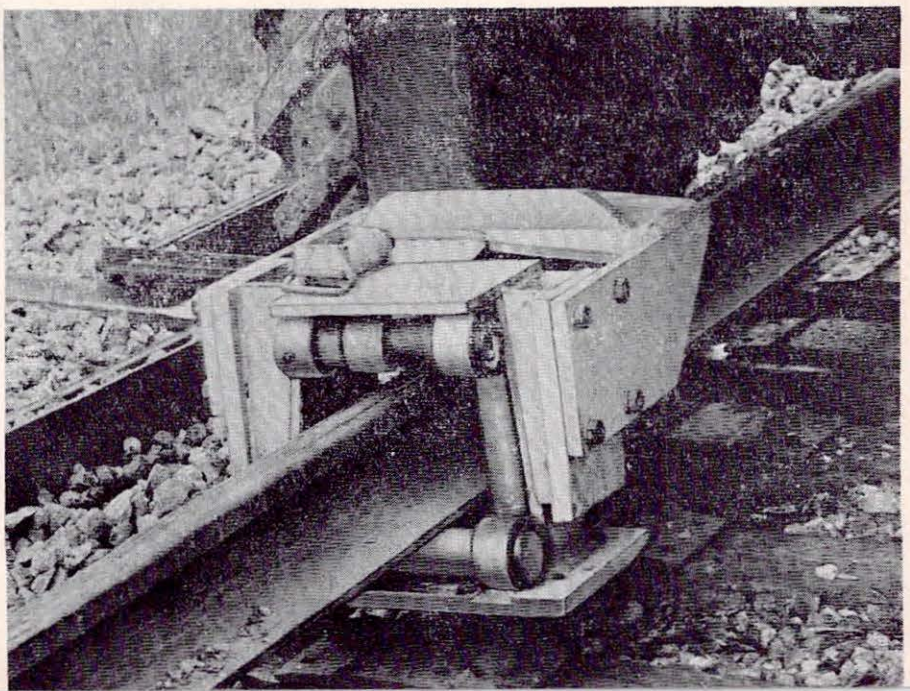
As the crane moves along the track, the rail, moving through the threader and the guides, is picked up and laid in position on the tie plates. This operation is facilitated by the fact that the rail guides are installed on hydraulically-controlled retractable steel support columns. Thus, they can be raised and lowered independently of each other. This arrangement makes it possible to raise the front rail guide high enough to permit the incoming rail to clear the ties.

On the other hand, the rear guide is in a lowered position so that rail fed from the rear of the machine is as close as possible to the tie plates.

Other equipment used in laying rail on the Seaboard includes Nordberg gaging, spiking and adzing machines, a Fairmont tie spray machine, and compressor mounted on Patton self-propelled carriages. Another unit, also modified by the railroad, includes a belt-driven broom for clearing the ties of ballast before new tie plates are placed.



FORWARD TRAVEL of crane (above) causes the long rail to move through threader and roller guides under machine and to be deposited on tie plates. Device at end of rod attached to threader brushes ballast and dirt from rail being laid. Roller guides (below) are supported from retractable steel columns and may be raised and lowered independently of each other. Rear guide is shown here.



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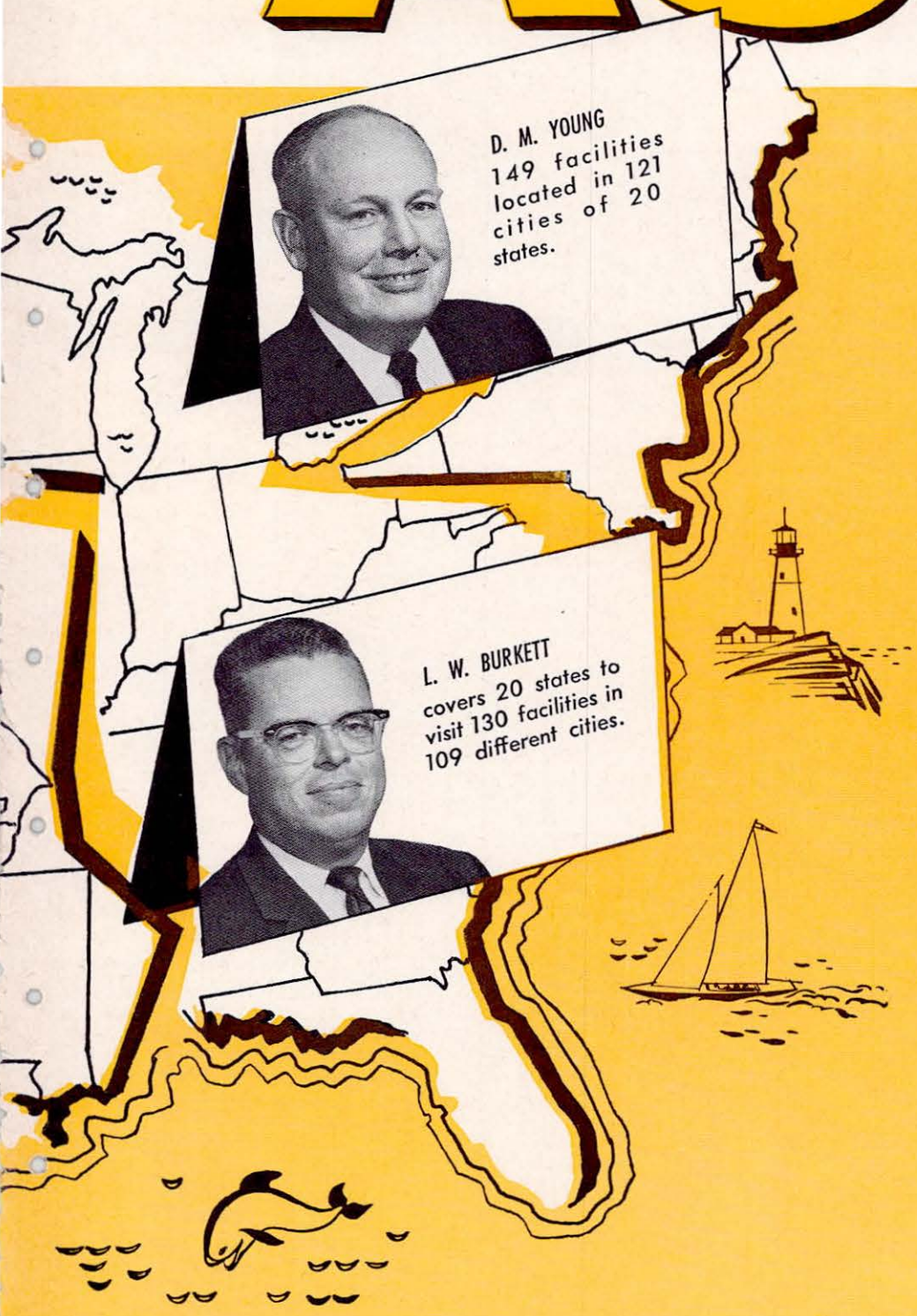
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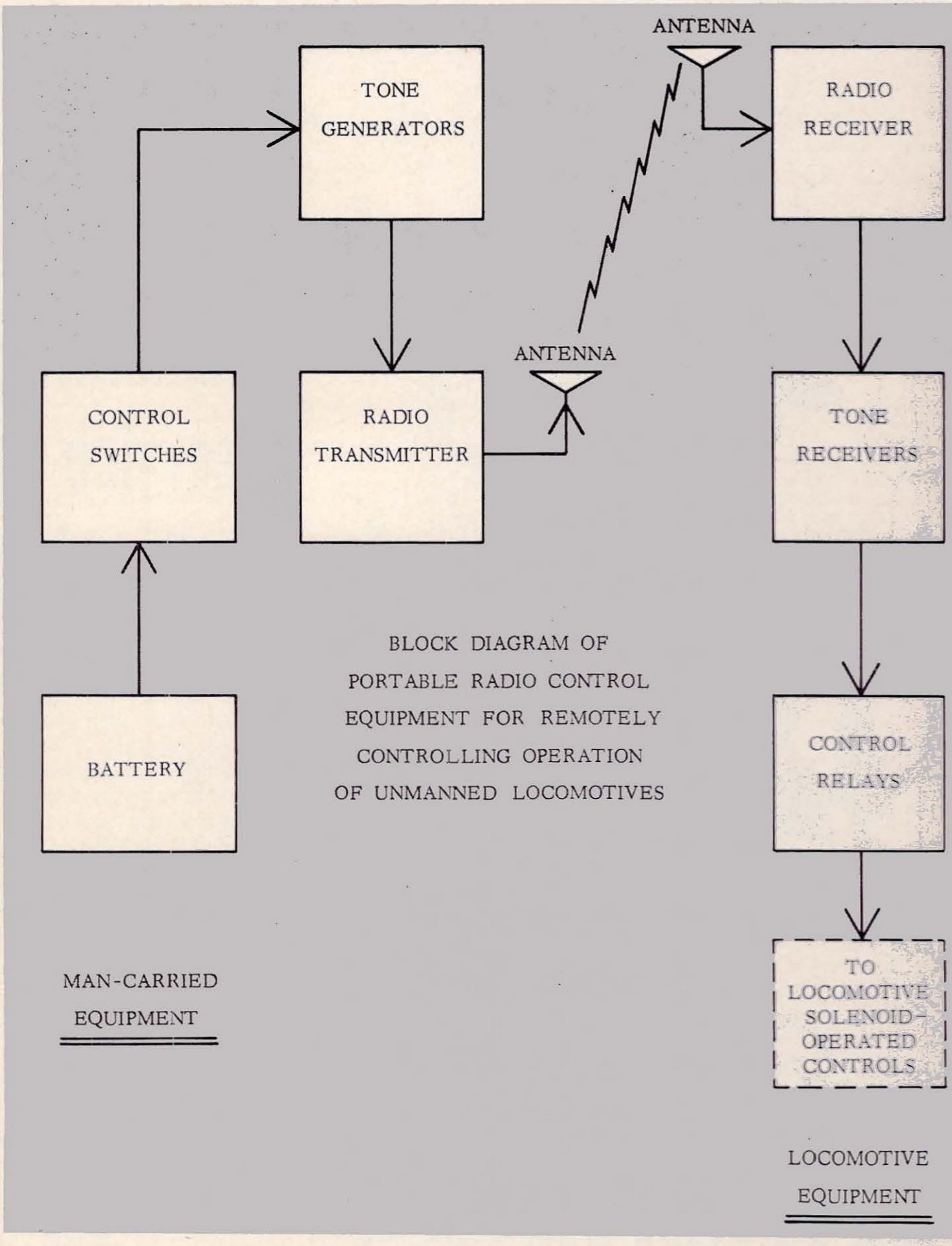
US&S Tests Radio Control of



Diesel Switching Locomotive

A radio controlled, unattended locomotive has been demonstrated by Union Switch & Signal Division of WABCo., at its Swissvale, Pa., plant.

Elsewhere, tests are under way in remote controlling a helper locomotive on a West Coast railroad (see page 24 of this issue). Similar remote control has been demonstrated using an industrial switching locomotive (RA, Oct. 17, 1960, p. 25), and one industry is using a radio-controlled in-plant switcher.

The latest entrant into the field of radio-controlled, unattended locomotives, Union Switch & Signal, announced just last week that radio controls had been installed on its own diesel switch engine and that the engine was being demonstrated at Swissvale. Under conditions described as adverse, the locomotive was satisfactorily controlled with the operator over 1,000 ft away. The range could probably be extended to one-half mile or more with good visibility and transmission path.

The operator, using portable radio control equipment weighing approximately 5 lb, can release brakes, start the locomotive in either direction and control its speed in increasing and decreasing steps, allow the locomotive to coast, and apply brakes to stop the locomotive. The setup also provides for blowing a whistle, sounding a bell, applying sand, and automatic uncoupling.

The portable radio control equipment used consists of a throttle-brake controller and a transmitter unit. The throttle-brake controller is held in one hand. The transmitter unit, which includes auxiliary control switches, is carried on a belt around the operator's waist. The hand control piece—by means of pushbuttons—controls speed and braking. A pistol-trigger-type, 3-position switch is built into the hand control piece. With the switch depressed to the middle or half-depressed position, brakes are released and the unattended locomotive is conditioned to operate. Running speeds are controlled from two spring-return pushbuttons which are mounted in the head of the hand control piece.

To move the locomotive and increase its speed, the "Advance" button is depressed and held until the locomotive has reached the speed that is wanted. To slow or stop the locomotive, the "Retard" button is operated in the same manner until the speed decreases to a predetermined rate, at which time the engine will automatically idle.

Normal braking is accomplished by fully depressing and releasing the trigger switch to middle position for short time intervals until the train is slowed to the desired speed. When the trigger is held fully depressed, a full brake application is obtained. This braking action is comparable to the manual use of the independent brake valve.

For maximum operating safety, the trigger of the hand control piece provides "dead man" control in two positions. If the operator becomes incapacitated, or is otherwise unable to maintain the proper amount of pressure on the hand piece, the spring-loaded trigger will snap to the fully extended position. This will cause the throttle to move back to the idle position and the brakes to apply. Similarly, if the operator grips the trigger so tightly that it moves to the fully depressed position, a full brake application will result.

A complement of pushbuttons and a toggle switch for controls to initiate forward or reverse movement, blow a whistle, ring a bell and apply sand are mounted in the top portion of the transmitter unit. For automatic uncoupling, another pushbutton would be added.

The hand control piece is molded of high impact resistant plastic. The transmitter is completely transistorized, measures 6 in. by 6 in. by 1¾ in., and weighs only 2.6 lb. It is powered by a self-contained, rechargeable nickel-cadmium battery supplying 14.4 volts. The transmitter operates in the VHF radio frequency range with power output under 1 watt. The transmitter contains 10 tone generators. One tone is used for each of the nine operating functions on the locomotive, and one for selecting the proper locomotive. The antenna consists of a flexible stranded wire threaded into the front half of the shoulder strap.

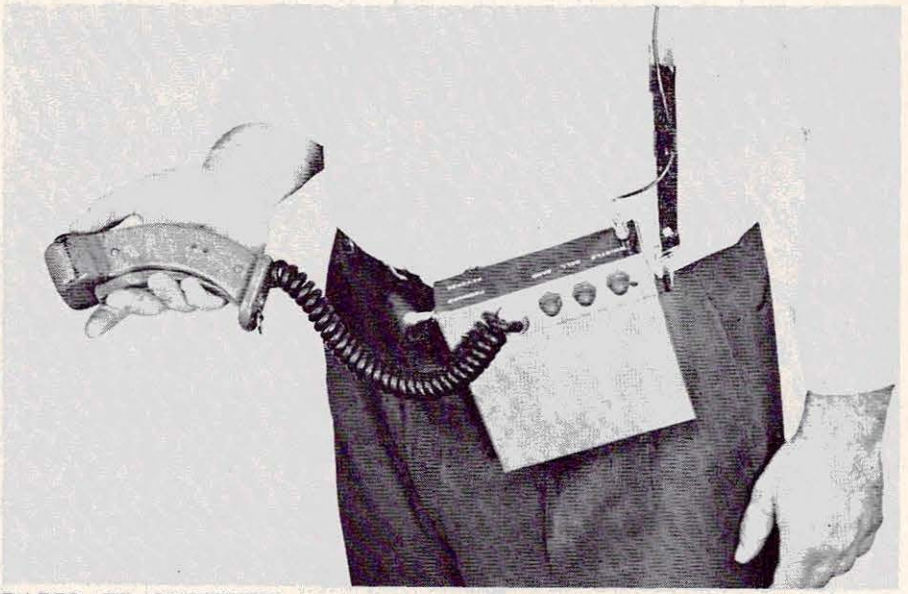
Each pushbutton or toggle switch on the control apparatus is used to select and control a specific audio frequency which, when modulating the carrier frequency, provides the means to accomplish the associated function on the locomotive.

Control signals are transmitted to the locomotive in the form of conventional space radio, with the carrier modulated by a single, or any required combination of, audio tone frequencies selected by the operator.

The locomotive apparatus consists mainly of a radio receiver, including a demodulating unit, which measures approximately 6 in. by 9 in. by 18 in., and an equipment box 30 in. wide, 20 in. high and 15 in. deep, which houses audio tone receivers and associated control relays. The equipment operates from the locomotive battery.

The locomotive apparatus is tuned to receive the tone frequencies, singly or in combination, to accomplish the required demodulation function, and to operate the relays on the unmanned locomotive.

A tone receiver and associated control relay is provided for each tone frequency and is responsive only to that frequency. The number of tone frequencies and associated tone receivers and control relays is determined by the number of locomotive functions required.



RADIO TRANSMITTER controls unmanned locomotive satisfactorily even with distances as great as 1,000 ft between the operator and the locomotive.

Unmanned 'Helper' Being Tested

► **The Story at a Glance: An unmanned pusher or helper locomotive is in trial service on a West Coast railroad. This—and other developments in remote control, or automatic operation, of trains—was described recently at a Land Transportation Conference of the American Institute of Electrical Engineers.**

"An economic use of remote control is that of reproducing all the throttle positions of the lead locomotive on an unmanned pusher or helper locomotive in long freight train operation in hilly country," says L. R. Allison.

"Any change in throttle or reverser position on the lead locomotive is automatically reflected in a change on the slave," Mr. Allison points out. "The communication medium is a two-way radio modulated by two tones. Instructions are sent out by a six-step binary code made up of a combination of the two tones. At the end of this six-step code, a single pulse transmitted from the slave locomotive indicates that the command has been received. Failure to receive this answering pulse results in a continuous repetition of the command until the pulse is received, whereupon the transmitter is locked out. Transmission takes place only when a code is being sent.

"In addition, at regular intervals (such as every 60 seconds) an interrogation pulse is sent out by the lead locomotive to check that communication between the two locomotives is intact. If communication is lost such as through tunnels, around sharp curves, in deep cuts, etc., the interrogation pulse is continually repeated, time after time, until communication is reestablished.

Mr. Allison, section engineer, automatic train control, Union Switch & Signal-Division of WABCo., who spoke at last month's Land Transportation Conference of the American Institute of Electrical Engineers (RA, June 12, p. 42), was describing actual tests on a West Coast railroad.

"The present system provides for 26 controls in addition to the interrogation code, and for five indications not including the single answering pulse," Mr. Allison continued. "Whenever an abnormality such as hot engine, low oil, slipping wheels, etc., occurs on the pusher locomotive, the transmitter of that locomotive signals the transmitter of the lead locomotive and it sends out an interrogation pulse regardless of the time. The answer to this interrogation code is the indication of the abnormality. This causes an indication light on the lead locomotive to become illuminated, thus advising the engineman of any trouble. After that he can use his own judgment in controlling his train.

"Should a command be given while communication is lost and the command keeps repeating itself, the locomotive throttle on the helper will step down to idle after a predetermined length of time. If communication is reestablished, the throttle will again work up to the same position as at the head end.

"In this system the engineer is not required to take any action or any part in control of the helper. However, he is kept informed by the indications on a lighted panel of any abnormality on the helper and in addition he may, by manipulation of a selector switch on this panel, limit the throttle position on the helper to one lower than his own. When air braking is called for, the communication between the two locomotives is of course through the standard train line," Mr. Allison said.

"The most complete automation system yet proposed would operate all trains on a railroad or section of a railroad from a high speed digital computer as the central brain. The prime requisite of this system is a highly reliable continuously effective multiple communication system. Each locomotive is queried in turn each second. In answer, the locomotive telemeters its location and train identity to the computer. From this information, the computer calculates velocity and acceleration, tests the reasonableness of the information it receives, and records the data. From knowledge of the whereabouts of other trains, program storage, and built-in logic, the computer makes decisions and then sends out commands to the locomotives.

"No power is required on the wayside. At each milepost and at each switch is a length of steel bar parallel to the track with location identity notched in its top edge in binary code. As a coil on the locomotive passes over this steel bar, corresponding binary pulses are generated and sent in to the computer. Distance measurement on the locomotive registers each ⅛ mile traveled.

Train identification systems may be used for ATO, Mr. Allison stated. "Suppose there is a branch line railroad serving a mineral deposit on which there is never more than one train at any time between the mining area and the junction with the main line. This eliminates any need for train-spacing commands and leaves only running speed commands. Since these depend upon curves and terrain, the speed commands may be given only at points where changes need take place." For this a train identification system may be used. "Ordinarily this is a . . . system in which two wayside coils loosely coupled to each other produce oscillator action while being passed by a tuned inert coil on the train. The frequency of oscillation and hence the identity of the train [are] determined by the resonant frequency of this inert coil. By using this . . . system reversed, that is, the tuned inert coil on the wayside and the normally wayside equipment on the locomotive, a variety of speed commands may be imparted to the train. For fail-safe reasons, each command is canceled by a permanent magnet placed in advance of each speed determining coil along the track.

"If cars on this train are to be set off or picked up, an attendant on the train may control the locomotive during this switching operation from the wayside, by means of a portable remote control radio transmitter such as previously described, after manually

Off-Track Machine Is Remote Controlled

A front-end loader tractor is being equipped for unmanned operation in a hazardous area. The purpose is not to displace manpower, but to eliminate the hazard of fire and overheat to the operator. In addition to the controls required for locomotives, means for steering and control of the bucket are required. The operator stands at a safe distance and, by manipulating switch levers on a belt-mounted small panel, can manipulate the tractor and bucket as well, but far more safely than if he were in the cab. A duplicate of this control panel is mounted on the cowl of the tractor for manual operation when necessaary. Controls are carried by radio.

operating a two-way Automation-Remote Control switch in the cab and then dismounting. The train resumes its journey under automation after the attendant has finished the local switching, boarded the locomotive and changed the switch back to Automation.

"A locomotive equipped for automatic operation need not be fitted with the conventional equipment for control of throttle, braking, reversing, horn-blowing, bell-ringing, sanding, etc., for manual operation. Logically, the automatic control equipment with which the locomotive is already fitted, may just as well be used in manual operation by the actuation of pushbutton switches on a control panel in the cab."

Mr. Allison described the automation of a quencher car locomotive servicing a by-product coke oven battery. Here the operation is repetitive: loading with hot coke, quenching, unloading quenched coke, and returning to next oven. Such an installation on one locomotive servicing one battery has been made at a coke oven in the Pittsburgh district. Communication between wayside and locomotive is by means of a reversed train identification system, that is, through coupling between tuned inductor coils, he said.

"Precise spotting of the quenching car at the selected oven door, at the quenching station, and at various places on the unloading wharf is by the location of tuned wayside coils. These are tuned at various frequencies for different functions. Movement commands are transmitted to the locomotive through the power rails. Synchronous movement of the car while being loaded with hot coke, with movement of the pusher, is accomplished by comparing distance pulses of the two moving bodies and automatically correcting for deviation from proper correspondence.

"We have talked about running a train automatically. We shall now discuss how this train can be brought to a stop at a precise point automatically. One method is to sense on the locomotive the distance it has traveled at any instant from the point at which it was given the command to begin the stopping procedure, and compare the output of this distance-measuring device with the output of a stop function generator. A servo system . . . automatically corrects for deviation from this stop function generator curve.

"To measure off distance, a variety of devices can be used. We can integrate the DC output of a tachometer; we can electronically count the cycles of AC from an axle-mounted alternator; or we can count the pulses from a rotary contactor on the axle. All of these devices should preferably be attached to a non-motored axle, for otherwise wheel slide or slip will produce disturbing results.

"To circumvent this problem, all that is necessary is to sense distance by counting fixed uniformly spaced points along the wayside. For example, a counting device can physically engage a series of trippers; a counting device can generate pulses through induction with a series of magnets; a counting device can generate pulses as it couples inductively with a current-carrying conductor disposed in loops along the track; or by a doppler radar scattering beams at the ground and at an optimum angle and then counting the doppler frequency cycles."

RAILROADING AFTER HOURS WITH JIM LYNE

TWO HANDSOME BOOKS—A richly illustrated volume, "Steam Power of the New York Central System," has reached me from the author, Alvin Staufer—who is also his own publisher and bookseller (P.O. Box 57, Leroy, Ohio.) The book has 224 large pages and sells for 12 bucks.

A somewhat thicker, large-page $15 volume is Kalmbach Publishing Company's (1027 North Seventh Street, Milwaukee) "Interurban Era." W. D. Middleton is the author.

When it comes to getting around in the vicinity of large cities—with all the billions that have been whooped off on highways—you don't make much better time now than you did when there were fewer autos and the interurbans were in their prime. Not all change is progress.

NO HUNTLEY OR BRINKLEY—A few days ago I had my first experience in a TV interview, from which I derived two firm impressions: (1) I look a heck of a lot older that I'd ever suspected, and (2) to make an adequate presentation on TV a fellow could use either a lot of rehearsing or a lot of experience, or both. (I had neither.) Writing is a lot easier, because you can improve your language before it reaches the audience.

The appearance was taped, so I had a chance in due course to observe my shortcomings—thus answering the old prayer of Bobby Burns: "O wad some power the giftie gie us to see oursel's as others see us." Now I know; and I hope it's not too late to mend, at least a little.

SALES-MINDED ENGINEMAN—Further confirmation of my conviction that there is a regular Niagara of loyalty to the railroads (on the part of employees and others)—a Niagara not yet harnessed to turn turbines in the industry's interest—comes in a letter I have from C&O Yardmaster K. M. Smith, Sr., at Fostoria, Ohio.

Mr. Smith enclosed a foot-square white card with large letters printed in red, reading: "Mr. Shipper: Ship by rail and make our highways happy trails." The cards are the work of NYC Yard Engineer L. C. Sindlebecher at Fostoria, who has had them printed at his own expense and has been putting them around where they'll be noticed.

INFORMED SALESMEN—City Freight Agent Robert J. McCarthy of the Milwaukee Road has written me a note expressing great enthusiasm for his company's "sales kit," with which all salesmen are now supplied.

Reader McCarthy believes this kit is "unique in the railroad industry." It gives full information, he says, "on all operations—including equipment, rate-making, routing, service, handling claims and so on."

Two things an effective salesman must know are (1) his own product; and (2) his prospect's problems. The selling job consists in finding out the ways in which (1) can mesh with (2); and convincing the prospect that it's so.

CHECKS AS RR ADS—I have seen a blank check, supplied by a couple of Amarillo banks to Santa Fe employees, which carry the railroad emblem and some such wording as: "This check issued by a Santa Fe employee, who would welcome your business."

I understand the idea originated with the late Lee Lyles and, at one time, was possibly more widely used than now. But it certainly seems an effective way of getting the word around.

NYC Plan: Equal Ownership, Then

► **The Story at a Glance: The New York Central's proposed solution of the problem posed by its contest with Chesapeake & Ohio for control of Baltimore & Ohio is equal NYC-C&O ownership of B&O stock and a trusteeship for that stock pending development of a three-road merger plan. This proposal was offered to the ICC by NYC President Alfred E. Perlman at last week's sessions of the Commission's hearing on the competing Central and C&O applications for control of B&O. While Mr. Perlman's testimony went into the record as a presentation in support of Central's application, the NYC president made it clear that Central's objective "has always been a three-way merger"—that it considers control arrangements poor second to mergers as producers of economies.**

Officers of the New York Central, led by President Alfred E. Perlman, last week made their plea for inclusion of their road in a new eastern system which would also embrace the Chesapeake & Ohio and Baltimore & Ohio. The NYC executives appeared at the ICC's hearing on competing Central and C&O applications for authority to control B&O.

(Another development on the merger front was a Commission order setting for hearing the merger applications of Great Northern, Northern Pacific and Burlington. The order assigned the case to Examiner Robert H. Murphy and fixed the hearing's first session for Sept. 19 at St. Paul, Minn. The order went on to provide that additional sessions will be held at Chicago, Milwaukee, Des Moines, Duluth, Helena, Billings, Bismarck, Fargo, Aberdeen, Spokane, Seattle and Portland.)

NYC President Perlman's proposal is that the Commission authorize Central and C&O to acquire control of B&O on condition that they have equal holdings and thus "equal responsibility" for B&O's welfare. This could be accomplished, Mr. Perlman suggested, by transfer to Central, "on reasonable terms," of a sufficient number of the B&O shares now tendered to C&O under its exchange offer. Then, Mr. Perlman continued, both C&O and Central holdings of B&O should be "placed in an independent trusteeship until such time as the merger desired by all three roads can be worked out." This claim that all three roads desire a three-way merger was based by Mr. Perlman on statements of B&O officers and C&O President Walter J. Tuohy's concession that a three-way merger might be desirable sometime, even though he opposes it now.

In Mr. Perlman's opinion, a Central-C&O-B&O merger is necessary as soon as possible "in the public interest to counterbalance the gargantuan system being assembled by the Pennsylvania." This was a reference to the recent merger of the Virginian into Norfolk & Western, N&W's proposal to merge with Nickel Plate and lease the Wabash, and PRR's application to control Lehigh Valley. The NYC president also noted that Central disposed of Nickel Plate "under threat of anti-trust action," while the Virginian "was regarded in early consolidation plans as a natural partner of Central."

"Despite the reservations I have about the Pennsylvania's acquisition of these connections, which were at one time in the Central orbit," Mr. Perlman continued, "I would not object to the creation of the Pennsylvania system, if a second regional system was assured. The need for a second system is so apparent, particularly in view of the general economic and competitive conditions in the East, that it should be a primary motivating factor in any sound disposition of this proceeding. As both Mr. Tuohy and Mr. Simpson (chairman of B&O) have said, the C&O-B&O-NYC affiliation is a natural counter system to that being assembled by the Pennsylvania. But it doesn't make sense to approve a scheme between two of the partners, which will result in the destruction of the third."

As to the B&O's financial situation, it's "just a symptom of a disease that affects all the eastern railroads," Mr. Perlman said. He added:

"It's a regional epidemic. Control of the B&O by the C&O may be a temporary palliative for the B&O, and perhaps temporarily make money for the C&O, but it will immediately aggravate the disease for the rest of us. At best, it will merely postpone the day of reckoning for the B&O. If the C&O application is granted, Central will suffer far more, and decline far faster, than would the B&O if the application is denied. . . .

"The situation is urgent all right, but it's urgent for all the eastern railroads, not just the B&O. I sincerely question

TRANSPORT TRENDS

HIGHWAYS: Greyhound is offering foreign travelers 99 days of unlimited bus travel within continental U.S. for $99. Dollar-a-day tickets are available only through travel agencies overseas . . . Missouri legislature has acted to liberalize tractor-trailer length and weight restrictions. One provision will permit longer over-the-road auto transporters. . . . Kentucky Turnpike Authority will begin construction of a $118-million, 127-mile toll road in the western part of the state this fall.

AIRLINES: A palletized preloading system (AirPak) being installed on Pan American all-cargo planes will cut ground loading time from 3½ hours to less than 1 hour. Pan Am expects "many other airlines" to adopt the system, leading to swift interchange of palletized cargo at terminals. . . . Youngstown, Ohio, may impose a $1-per-passenger landing fee to trim its airport deficit. . . . Net operating loss of domestic airlines in first four months of 1961 was $16 million, largest deficit for any comparable period since 1947.

WATERWAYS: Anti-user charge fight of water carriers will be led by a Kentucky oil executive (Paul G. Blazer, Ashland Oil & Refining Co.) and a Mississippi banker (Wade W. Hollowell, First National Bank, Greenville). They were named chairman and president, respectively, of the National Waterways Conference, Inc., at its first annual meeting in Chicago. The meeting was told that imposition of waterway tolls could increase the nation's food bill by $281 million a year.

Merger

the ability of independent railroads to survive in the face of present day economic conditions and the proposed Pennsylvania empire."

Following through on the latter, Central's next witness, President John W. Barriger of the Pittsburgh & Lake Erie, said that if the C&O application is granted, without provision for inclusion of NYC, the Central "will undoubtedly become bankrupt from traffic malnutrition and fiscal anemia." That would "force serious liquidation of service and property" by Central, Mr. Barriger added.

Meanwhile, the P&LE president had testified that immediate merger between B&O and Central "would promptly produce very large economies which would go far towards solving the financial problems of both these carriers." As to control of B&O by C&O, it was Mr. Barriger's opinion that this "will not produce sufficient increase in their respective earning powers to afford assurance of protection of the present B&O financial structure."

These views of Mr. Barriger were based on studies which have indicated that economies in "predominantly end-to-end mergers of the C&O-B&O type" are "comparatively small," while "parallel or side-by-side mergers of the B&O-Central type" bring about "more spectacular savings." Prospective annual savings from a B&O-Central merger were estimated by Mr. Barriger at "not less than $87,500,000 based on 1960 results."

Arthur E. Baylis, Central's vice president—marketing, stressed his road's "utter dependence" upon revenues from business it does in Central Freight Association territory. This and "the effectiveness of the Pennsylvania's competition" should make it clear that exclusive control of B&O by C&O "would result in the strangulation of Central," Mr. Baylis added.

He supported this statement with specific examples of traffic losses suffered by Central following the Erie-Lackawanna and N&W-Virginian mergers. He noted, too, that the losses came despite the fact that Commission orders approving those mergers had conditions requiring the maintenance of pre-merger routes.

"It is quite apparent," Mr. Baylis continued, "that any terms or conditions regarding rates, routes, or services which might be offered to the Central in this proceeding would be worthless. The Central has been taught this by bitter experience."

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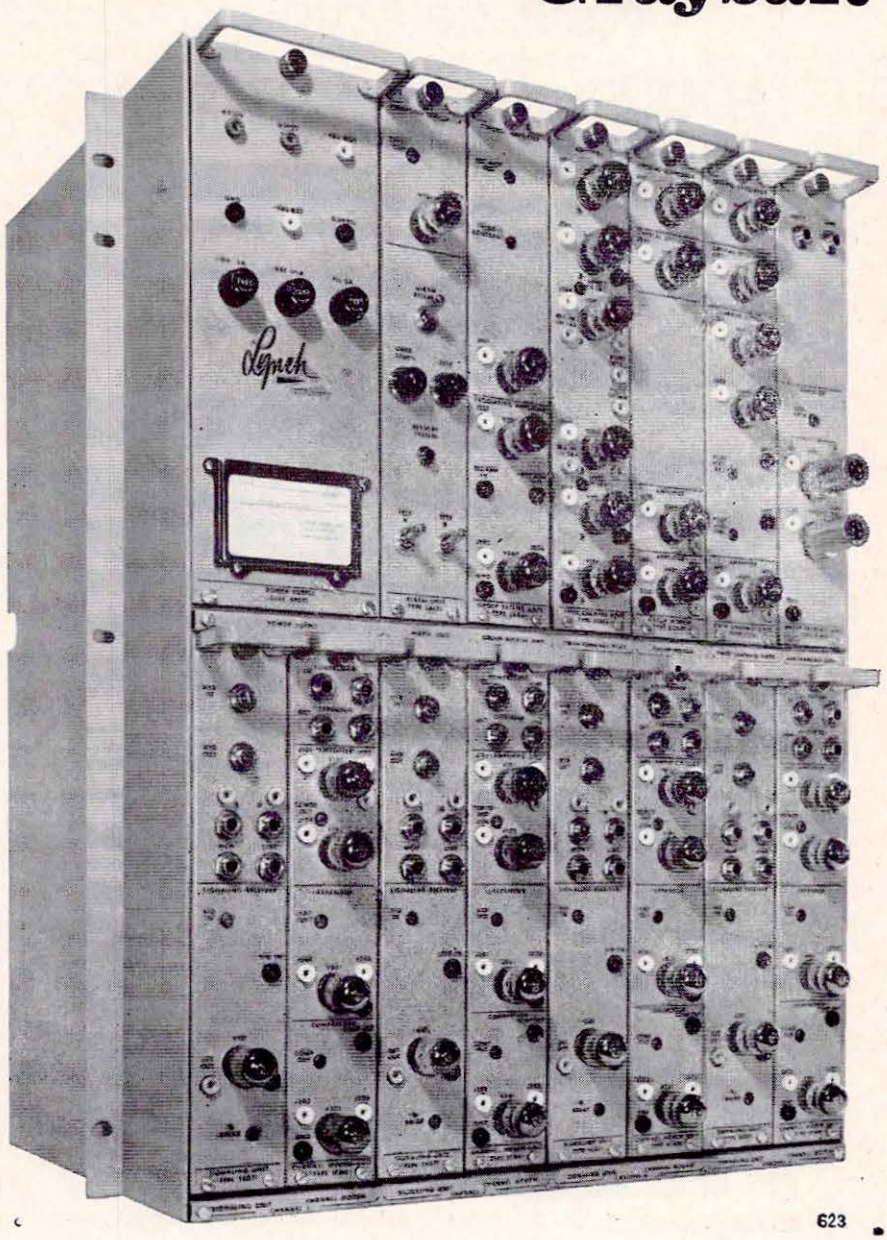

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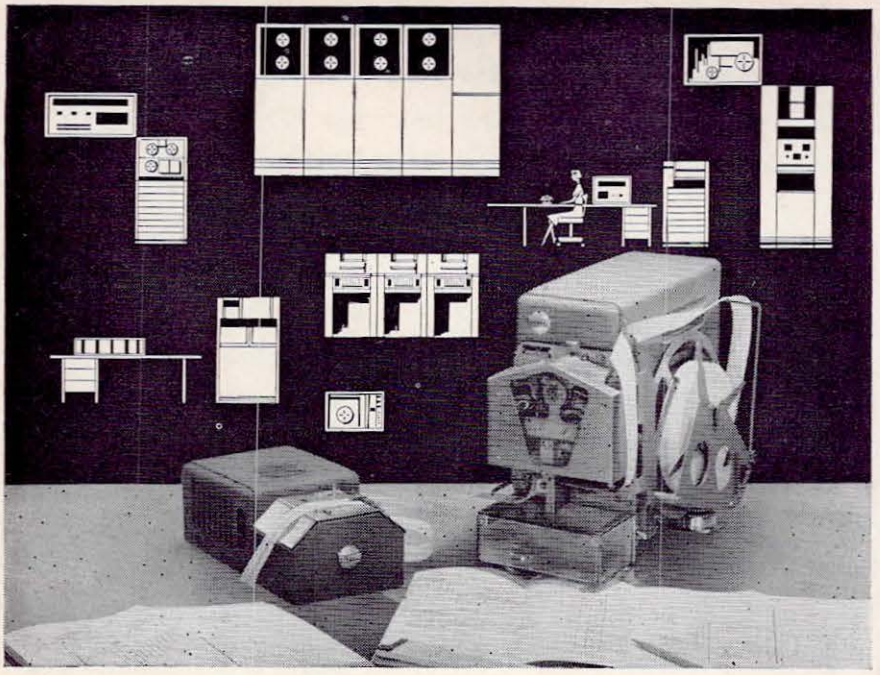


New Teletype 1000-speed tape units

Here are two new units that offer the advantages of punched paper tape at 1000 words per minute—and combine traditional Teletype dependability with design simplicity and relatively low cost. Used together, the CX reader (left) and BRPE punch (right) are ideal for tape-to-tape communication of bulk message or statistical traffic via the new Data-Phone service. The reader and punch may also be used individually for communicating data to or from computers, and other devices associated with data processing, telemetering and similar communications functions.

These high-speed units operate on a parallel-wire signal path, in either transistorized or vacuum tube circuits. For serial transmission over conventional voice channels, signals can be converted by external facilities. A pulse generator, adjustable through a full 360 degrees, triggers the external signal storage and provides optimum synchronization of intelligence transfer.

Tape Reader—Will read chadless or fully perforated tape, in 11/16", 7/8" or 1" tape widths. Includes a set of auxiliary timing contacts that operate simultaneously with the sensing pins and assure accurate synchronization with associated transmitting equipment. Dimensions: 5" high, 6" wide, 11" deep. Models available for reading 5, 6, 7, or 8 level codes.

Tape Punch—Produces fully perforated tape. Equipped with "low tape" warning mechanism which can be wired to external alarms. Tape container designed for easy access. Dimensions: 12" high, 8" wide, 16½" deep. Available in two models—one for punching standard 5-level communications code (11/16" tape); the other adjustable for punching 6, 7 or 8 level codes (7/8" or 1" tape).

Teletype Corporation manufactures this equipment for the Bell System and others who require the utmost reliability from their data communications facilities. For free descriptive literature on the CX and BRPE units, write Teletype Corporation, Dept. 76G, 5555 Touhy Avenue, Skokie, Illinois.

TELETYPE®
CORPORATION • SUBSIDIARY OF *Western Electric Company* INC.

'Ops' Dispute Claim Fireman Isn't Needed

Eli L. Oliver, economist for the five unions representing railroad operating employees, last week told the Presidential Railroad Commission that a union survey of mechanical duties performed by firemen contradicts previous management testimony that firemen are not needed on road freight diesels. Mr. Oliver appeared at hearings the Commission is holding in Washington in connection with its investigation of the so-called "featherbedding" dispute.

Because of the differences between the management and union findings, Mr. Oliver recommended that the Commission have its own staff make a survey. The union survey showed that "trouble signals on the instrument panel" occurred on 46.58% of the trips. The carriers, as Mr. Oliver recalled, showed that such alarms occurred on only 8.9% of the trips.

Mr. Oliver also introduced ICC locomotive inspection reports and other Commission figures on equipment in an effort to rebut management testimony regarding the durability and dependability of diesels.

Pattern Settlement Urged for Yardmasters

A Presidential emergency board has recommended that yardmasters represented by the Railroad Yardmasters of America be given wage increases like those granted last year to employees represented by other unions. That pattern calls for inclusion in the basic rate of cost-of-living increases in effect May 1, 1960; a 2% increase retroactive to July 1, 1960; and an additional 2% increase retroactive to March 1, 1961. The board also recommended that RYA's holiday-pay proposals be resolved by granting the yardmasters an increase of two and one-third hours pay in their monthly rates. Also recommended were more liberal vacation arrangements.

The board made its report to President Kennedy on July 10.

Dividends Declared

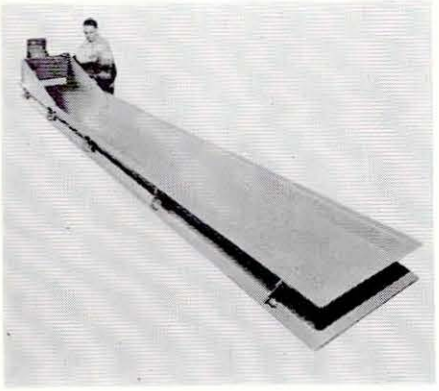
ALGOMA CENTRAL & HUDSON BAY.—common, 25¢, quarterly; 6% preferred, 75¢, quarterly; both payable Sept. 1 to holders of record Aug. 15.

CHESAPEAKE & OHIO.—3½% preferred, 87½¢, quarterly, payable Aug. 1 to holders of record July 7.

CINCINNATI, NEW ORLEANS & TEXAS PACIFIC.—5% preferred, $1.25, quarterly payable Sept. 1 to holders of record Aug. 15.

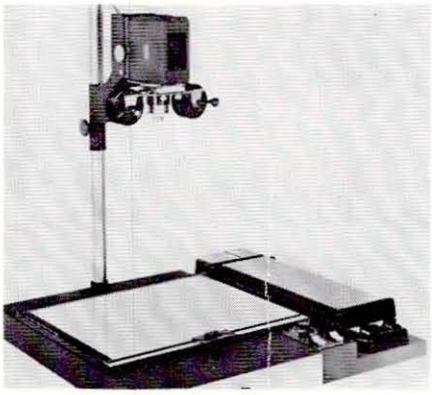
SOUTHERN.—5% non-cumulative preferred, 25¢, quarterly, payable Sept. 15 to holders of record Aug. 15.

NEW PRODUCTS REPORT



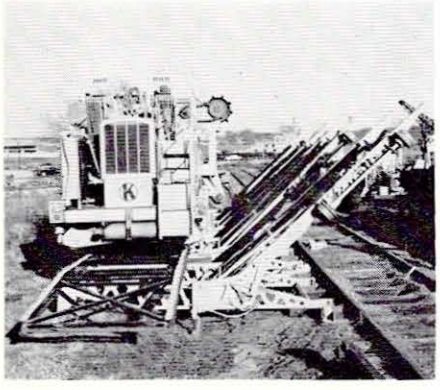
Conveyor Feeder (RA-1)

Model NF-6-168 pneumatic conveyor feeder is 16 ft. 8 in. long and has a 4-in. by 24-in. trough that can move bulk or granular material or assembly parts in amounts up to 30 tons per hour. The flow rate can be changed by adjusting the air pressure range from 20 to 70 psi. The feeder is operated by a Navco BH4 air vibrator that incorporates Navco's one-piece design. *National Air Vibrator Co.*



Microfilm Reader-Printer (RA-2)

The Micro-Mate and Micro-Mate Jr. can copy varied technical and non-technical material. The Micro-Mate accepts microfilm transparencies either of 16- or 35-mm strip film and IBM card mountings. Prints up to 18 by 24 in. (9 by 14 in. on Jr. size) are made in about 10 sec. Copy of any color can be reproduced. The reader-printer can also be used as a standby office copy machine. *Federal Mfg. & Engr. Corp.*



Temperature Detectors (RA-4)

Thermochrom crayons and Detecto-Temp paints are products which change color when certain temperatures are reached. The crayons indicate 18 temperatures between 150 and 1,240 degrees F. The paints indicate 58 temperatures between 104 and 2,462 degrees F, and provide a protective coating. The color changes are distinctive, permanent, and resistant to environment, according to the manufacturer. *Curtis Wright Corp.*

Self-Propelled Setoff (RA-3)

A self-propelled, hydraulically operated setoff is available which can be lengthened to accommodate all the machines in a track gang. Known as the Kershaw Multiple Set-off, the new device consists of a ramp which moves transversely on the carriage to remove the machines from the track. The carriage then is raised hydraulically to clear the track. *Kershaw Manufacturing Company.*

Industrial Cleaner (RA-5)

Where a heavy-duty cleaning action is needed, stubborn grease and grime, it is said, can be quickly removed through the use of Navee '42. This degreaser is said to emit no hazardous fumes and to have a high flash point. It is not volatile and is free from fire risk under most conditions. It is made of special solvents, emulsifiers, and wetting agents. *National Analine Div., Allied Chemical Corporation.*

RAILWAY AGE WEEKLY

PLEASE SEND ADDITIONAL INFORMATION RELATING TO PRODUCTS ADVERTISED ON PAGES 2 3 4 8 11 13 20-21 27 28

RA-1 RA-2 RA-3 RA-4 RA-5 RA-6 RA-7 RA-8 RA-9 RA-10

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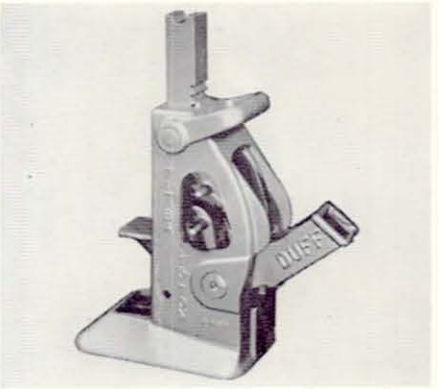
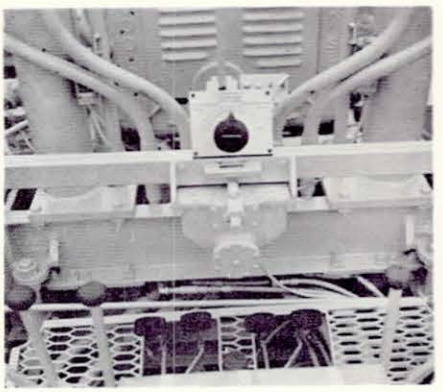


Aluminum Track Jack (RA-6)

An aluminum track jack, designed for high or low operations, weighs 36 lb and has a lifting capacity of 15 tons. From its 6½- by 10¼-in. base, it measures 14 in. high and has a raise of 7½ in. Foot lift height is 2 in. and rack size is 1⅝ by 1⅝ in. Support bushings are grease packed. Model 717-BA parts, with the exception of rack and base, are interchangeable with six other Duff-Norton Jacks. *Duff-Norton Co.*

Paper Tape Punch (RA-7)

The model D875 Universal Code Punch and Verifier is a fast, accurate and economical means of manually punching and verifying from an original document into paper tape machine language. It is built around the same keyboard used on the IBM Card Punch, and includes a paper tape punch, a tape reader, and interconnecting control circuitry. The system is also capable of tape duplication with insertions and deletions. *Systematics.*



Facsimile (RA-9)

A new facsimile system, Scan-A-Fax, is completely transistorized. It accepts all types of copy up to 1.8 in. width, any length, for transmission at 1.8 in. per minute. Twice this speed is obtainable with wide band (microwave) channels. The operator can selectively transmit any portion of the copy. A "Rapid Run-up"' feature advances transmitted copy for immediate removal. *Fairchild Camera and Instrument Corp.*

Automatic Leveling (RA-8)

An automatic electronic cross-leveling device has been developed for use with the Kershaw Super Jack-All. Designated the Auto Level, the device is designed to automatically bring the opposite rail to the same elevation as the grade rail. In addition, the manufacturer says, superelevation can be accomplished by setting a dial located in the operator's compartment. *Kershaw Manufacturing Company.*

Data Processing (RA-10)

New data transmission features, the 1014 remote inquiry unit, telegraph input-output, 1009 data transmission unit and adapter, allow the 1410 computer to have direct two-way communication with a number of different sending and receiving devices. Equipped with the new 1301 disk file, the 1410 system has access to 250 million characters. This data is available to any of the remotely located devices. *IBM Corp.*

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NAME ..... TITLE .....
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ADDRESS .....
CITY..... ZONE..... STATE.....

7/17/61

Market Outlook

Carloadings Drop 20.4% Below Previous Week's

Loadings of revenue freight in the holiday week ended July 8 totaled 424,984 cars, the Association of American Railroads announced on July 13. This was a decrease of 108,589 cars, or 20.4%, compared with the previous week; a decrease of 32,795 cars, or 7.2%, compared with the corresponding week last year; and a decrease of 127,329 cars, or 23.1%, compared with the equivalent 1959 week.

Loadings of revenue freight for the week ended July 1 totaled 533,573 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, July 1

District	1961	1960	1959
Eastern	78,453	80,317	86,501
Allegheny	86,020	86,591	106,933
Pocahontas	22,369	22,893	21,646
Southern	90,838	92,881	96,340
Northwestern	87,039	98,613	100,397
Central Western	119,606	115,437	110,979
Southwestern	49,248	51,161	51,306
Total Western Districts	255,893	265,211	262,682
Total All Roads	533,573	547,893	574,102
Commodities:			
Grain and grain products	70,762	64,829	63,426
Livestock	2,636	3,297	3,395
Coal	37,614	31,836	31,811
Coke	6,652	5,728	9,082
Forest Products	34,224	35,977	38,256
Ore	51,072	66,638	62,294
Merchandise l.c.l.	28,919	36,245	39,997
Miscellaneous	301,694	303,343	325,841
July 1	533,573	547,893	574,102
June 24	600,001	641,337	697,797
June 17	602,153	649,503	724,278
June 10	593,304	648,658	709,841
June 3	531,267	574,980	680,617
Cumulative total, 26 weeks	13,591,762	15,689,790	16,268,388

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended July 1 totaled 11,925 cars, compared with 11,696 for the corresponding 1960 week. Loadings for 1961 up to July 1 totaled 286,305 cars, compared with 276,338 for the corresponding period of 1960.

IN CANADA.—Carloadings for the nine-day period ended June 30 totaled 102,528 cars, compared with 75,383 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
June 30, 1961	102,528	28,414
June 30, 1960	106,747	34,850
Cumulative Totals		
June 30, 1961	1,648,133	625,921
June 30, 1960	1,796,100	738,339

New Equipment

FREIGHT-TRAIN CARS

► *American Refrigerator Transit Co.*—Ordered 10 50-ft, 70-ton steel sheathed refrigerator cars of 2,838-cu-ft capacity from Pacific Car & Foundry for September delivery.

► *Gulf, Mobile & Ohio.*—Ordered 475 cars from Pullman-Standard at a cost of approximately $4,500,000. Order includes 400 50-ft box cars, which will be built at Bessemer, Ala., and 75 hoppers, to be built at Butler, Pa.

► *Northern Pacific.*—As part of its 1961 car program, NP has ordered 50 50-ft mechanical refrigerator cars from Pacific Car & Foundry at a cost of approximately $1,450,000. Scheduled for delivery in September, the cars will be furnished with Equipto load dividers, roller bearings and Trane refrigeration. Ten will be equipped with Witte Model 120-RDA, Type E power plants and 40 will have Stewart & Stevenson Model 2-71, Detroit diesel engines.

PASSENGER-TRAIN CARS

► *Brazilian Federal Railway System.*—Ordered 18 meter-gage (3-ft, 3⅜-in.) passenger cars from ACF at a cost of $3,300,000. The cars, financed under an Export-Import Bank credit, will be built at Berwick, Pa. Delivery is to be completed by November 1962. Order includes nine 51-ft, 50-passenger first-class cars with coach-type seats, and nine 60-ft, 56-passenger third-class cars with longitudinal seats. Cars will be of LAHT-steel construction.

► *New York City Transit Authority.*—Proposed capital budget for 1962 includes $185,820,000 for purchase of 1,580 new subway cars—980 for the IRT line, 400 for the BMT, and 200 for the new Chrystie Street BMT-IND connection. The budget is subject to approval by the Board of Estimate. NYCTA has not yet announced the winner of a contract to build 220 cars under the current budget, but St. Louis Car is reported to be the low bidder.

► *Union Pacific.*—Ordered 35 postal storage cars and 10 baggage cars from St. Louis Car at a cost of approximately $6,500,000. General Steel Industries will supply cast steel 6-wheel trucks and platforms for the 85-ft cars, which will be built at St. Louis Car's North St. Louis, Mo., plant for delivery beginning second quarter 1962.

LOCOMOTIVES

► *General Electric.*—First sale of GE's new U25B units has reportedly been made to a major western road. Four of the 2,500-hp units are said to be involved.

► *Rock Island.*—Ordered 10 1,800-hp GP-18 road switchers from EMD at a cost of $1.6 million. Units are scheduled for autumn delivery.

SPECIAL

► *Bad Order Ratio 1.8% Higher Than Last Year.*—Class I railroads on June 1 owned 1,641,867 freight cars, 31,341 less than last year, according to AAR report summarized below; bad order ratio was 1.8% higher than on June 1, 1960.

	June 1, 1961	June 1, 1960	Change
Car ownership	1,641,867	1,673,208	—31,341
Waiting repairs	162,767	135,331	+27,436
Repair ratio	9.9%	8.1%	+ 1.8%

TV Looks at the Railroads—Again

Thanks to Jim Lyne and the people over at NBC's "Today" show, television has clarified the somewhat murky picture of railroading as presented on the recent, lamented "White Paper—Railroads: End of the Line?" (RA, May 29, p. 58.)

An interview with Railway Age's editor by NBC-TV emcee Ray Scherer on "Today" July 7 had one thing which Chet Huntley's White Paper presentation seemed to lack: perspective.

Mr. Scherer took up the interview at the same point where the Huntley White Paper spent so much time—the New Haven and its troubles. He noted that "we've pretty well set forth the fact that the railroads are in trouble." But, he said, "a lot of us wonder why. What is it, poor management?"

Railroad management, replied Mr. Lyne, doesn't have to apologize at all in comparison with other business management. He went on to explain some of the peculiarities of the railroad situation.

"It's a question of just how many problems can the most expert management solve," he said. "When you heap them on, one by one, now and then you get a pile that's just too much for anybody to handle. I think that the managements of most of the railroads, considering the complexity of their problems, have done rather well. Some of them have been successful, and others have not—but certainly I would not be in a position to judge any one of them adversely."

Then Mr. Lyne began outlining some of the reasons why railroads are in trouble.

He mentioned the "very heavy governmental promotional efforts" in behalf of competitive forms of transportation—efforts which, of course, are not made in behalf of the railroads.

He emphasized the regulatory inequities under which the industry labors—"Rate-making and safety practices and a host of other things, in the case of the railroads, were frozen into regulation, into law, a generation or two ago. Other industries can adapt to changing circumstances because they don't have to get a law changed or get regulatory permission before they can change. But you don't have that freedom of action in the railroad business."

NBC's interviewer then wondered how unfair competitive conditions might be rectified. Railroad people, Mr. Lyne assured the "Today" audience, "are not at all socialistically inclined. There are none that I know of who want to see the railroads taken over by government or financed heavily by government. That being the case, the ideal way of solving this problem . . . would be to make the highway system and the inland waterway system and the airways more largely self-sustaining than they are at this time. I'm sure there's a very large lag between the payment that users of these other transportation facilities make and the actual expenditures by government on them."

The point, he explained, is not that the railroads have any objection to, for example, air travel as such. The question is "whether the general public should pay the cost [of building and maintaining facilities] or whether the people who actually use the service should pay it."

Mr. Lyne then went on to outline some of the things railroads are doing to improve their own position—including efforts to cut costs and improve service through mergers; and moves designed to preserve rail passenger service around metropolitan areas to keep cities from strangling on an overdose of concrete and asphalt.

He wound up with a couple of facts which somehow seemed to have eluded those who staged the White Paper on railroads last month:

- Commuters account for a little less than 2% of railroad revenues. Commuter service is important to a few roads—but "railroads never did make any significant amount of money from the commuter business and probably never will."

- Freight service is the reason railroads exist. Even though commuters are important to a few carriers, even though it would be a mistake for the industry to abandon all passenger service, "freight is the big source of railroad revenue—and it's their principal claim to national attention. They—the railroads—are absolutely essential to the country as a means of economical freight transportation."

So it went, and those TV viewers who saw the July 7 "Today" show got a little different slant on railroading than the bobtailed one on commuters and passenger service which the White Paper presented.

—Gus Welty

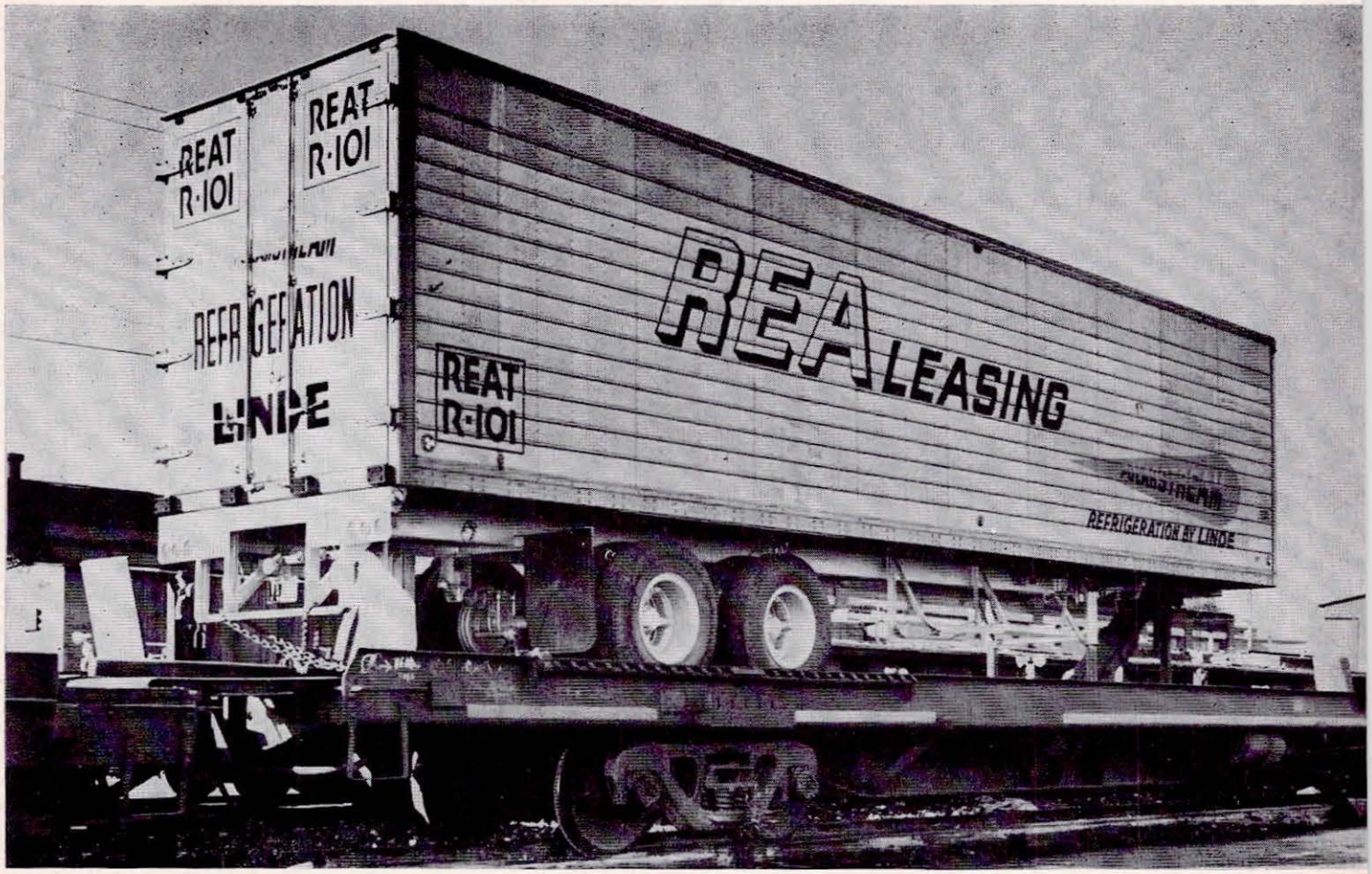
NH BANKRUPTCY HEARING SET AUG. 15 (*Continued from page 10*)

pressed by public officials in New Haven territory.

The four states in which the New Haven operates, New York, Massachusetts, Connecticut and Rhode Island, have voted the New Haven tax relief totalling more than $6,000,000 annually. In return, the railroad directors have voted to acquire 100 new commuter cars, partly through sale of equipment trust certificates and partly through lease arrangements with the Port of New York Authority (RA, March 13, p. 6). Fate of the commuter cars is in doubt until a trustee has been named and has made a decision on whether or not to proceed to acquire the cars. Acquiring the cars, however, would not necessarily be inconsistent with the road's status as a bankrupt carrier under reorganization.

Mr. Alpert, in announcing the bankruptcy petition, listed many problems that the New Haven has faced as partly responsible for its condition. Direct and indirect subsidies to competitors and inequitable taxes are insuperable obstacles, Mr. Alpert said, adding that "the huge passenger deficits, resulting from the high ratio of passenger to freight service on the New Haven, have cut deeply into our cash."

The ruling that the New Haven was ineligible for a $5,500,000 loan under the Defense Production Act, Mr. Alpert said, had forced the NH board of directors to conclude "that a proceeding for reorganization under the Bankruptcy Act is the proper course. It is hoped that such proceedings by permitting the suspension of all taxes and other obligations, will make possible the continuance of service in the public interest, temporarily at least. . . . The proceeding in bankruptcy will not solve the basic problems. . . . In or out of bankruptcy, the fundamental problem will not be solved unless the railroads receive equal treatment with their competitors on all levels of government."



IN-TRANSIT INSPECTIONS are unnecessary and pre-trip cooling can be completed in 5 min., says REA Leasing Corp.

REALCO Starts Reefer Service

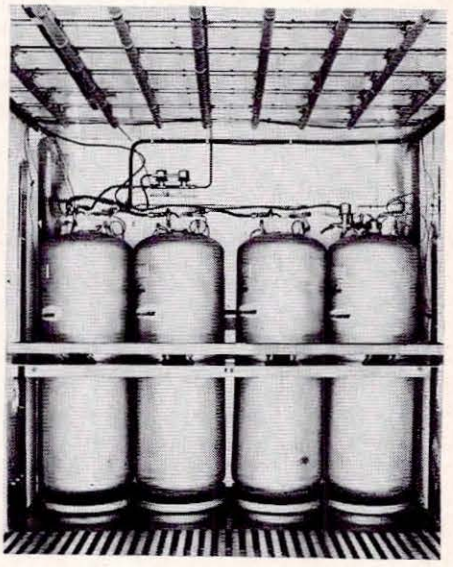
A trailerload of meat, maintained at proper temperature by a non-mechanical liquid-nitrogen refrigeration process, was piggybacked by the Burlington from Omaha to Chicago last week. This overnight run, first revenue trip for a trailer with the newly developed Polarstream cooling equipment, marked the entry of REA Leasing Corp. (REALCO)—subsidiary of REA Express—into the refrigerated piggyback field.

Polarstream, as the Linde-developed liquid-nitrogen cooling system has been named, is expected to be used for the refrigerated transport of all types of perishables and frozen foods. G. A. Kelly, Linde's Polarstream Process manager, and P. Bayler, REA Leasing vice-president and general manager, commented in a joint statement: "The performance of the Polarstream process in trailers and containers is so revolutionary and far reaching that the two companies are collaborating in its broad transport applications."

REA Leasing, Mr. Bayer said, will make Polarstream-equipped trailers and containers available on a per diem basis to railroad, forwarder, motor carrier, and shipper members of its equipment pool, and to others on a standard lease arrangement. The first units, leased to the Burlington, are being used for piggybacking fresh meat from Armour & Co. and other packers at Omaha to Chicago and Eastern Seaboard points.

While the Burlington meat shipments are moved at 35 deg F, the equipment can provide temperatures to minus 20 deg F, and can hold them within 2 deg of any setting. Trailers and containers with Polarstream equipment are cheaper and lighter than comparable mechanically refrigerated units. Larger payloads can be handled because no air circulation space need be provided.

A pair of 12-volt batteries power the thermostat-solenoid system which controls the discharge of nitrogen into the lading space. As a liquid, nitrogen has a temperature of minus 320 deg F. Four of the 370-lb liquid-nitrogen cylinders, carried in a 20-in.-deep section across the front of the trailer or container, have sufficient capacity for up to eight days of cooling.



LIQUID NITROGEN in four cylinders at front of trailer cools lading as it is released through header on ceiling. Going from liquid to gas this inert refrigerant absorbs 85 BTU per lb; similar quantity of heat is absorbed as gas is then "warmed" to the temperature of the lading.

SP, ATSF BATTLE FOR WP CONTROL (*Continued from page 9*)

Six western states are also taking, publicly, a no-favorites position. Support for maintaining the status quo regarding WP was reportedly agreed upon at a meeting of representatives from Arizona, California, Nevada, Oregon, Washington and New Mexico. Santa Fe, however, questioned the report of the states' action and cited earlier support received from corporation commissions in two of the six states.

One of the most recent comments on the situation came from the man in the middle—WP President F. B. Whitman, who told the annual shareholders' meeting late in June that "the issue in these cases is very simple. It's a question of reestablishing a Southern Pacific monopoly in the area now served by Southern Pacific and Western Pacific or continuing the Western Pacific under Santa Fe control as an independent, aggressive, competitive railroad."

SP scoffs at the monopoly reference (and, in fact, both SP and ATSF are promising to keep WP alive as a separate operating entity under a control setup). SP's argument has been that competition for railroads today is not primarily other railroads but rather other forms of transportation.

When Rio Grande switched from disinterested intervenor to SP supporter last month, SP President D. J. Russell called it "significant that Western Pacific's only connecting railroads at the Salt Lake City gateway—Rio Grande and Union Pacific, which also connect with Southern Pacific at Ogden, Utah—support the Southern Pacific in this case and oppose the Santa Fe. This is recognition that our program for cooperation and coordination with Western Pacific in the elimination of waste and duplication is in the best interest of the public and the railroad industry."

For its part, Rio Grande said it "can only see the eventual diversion of transcontinential freight traffic from the historic Utah gateways and Salt Lake City and Ogden to the 'Santa Fe All the Way' route through Arizona and New Mexico if the Santa Fe should secure control."

Santa Fe President E. S. Marsh promptly denied that Rio Grande's fear is a valid one. ATSF, he said, has agreed in writing to maintain WP "as a separately operated railroad soliciting traffic through the Utah gateway as in the past, and also has agreed it would not use its control of the Western Pacific in any way to solicit traffic from the Utah to the Arizona gateway."

Mr. Marsh charged further that acquisition of WP by SP "would suppress competition over a large part of the central transcontinental route and would pave the way for suppression of competition over much of the remainder of that route." If SP were allowed to "destroy the independence" of parallel and competing WP, he said, it would "gravely impair the prospects of continued independence of the Rio Grande" by creating a precedent "whereby Union Pacific could destroy competition of the parallel and competing Rio Grande between Salt Lake City and Denver." UP, Mr. Marsh noted, has already acquired about 10% of D&RGW stock.

(WP common, at last report, was fairly well split among the contending roads and their supporters. Santa Fe had about 20%, SP, GN and UP about 10% each.)

The formal agreement which Santa Fe and Western Pacific have made—subject, of course, to eventual approval of the ATSF application—calls for creation of a new corporation, Western Pacific Railway Co., as a wholly-owned subsidiary of Santa Fe. All assets of the present WP Railroad Co., would be transferred to Santa Fe in exchange for ATSF stock, which would be distributed to present WP holders on a 1¼-for-1 basis.

Santa Fe's offer, which WP directors have accepted, calls for an exchange on a basis of 1¼ shares of ATSF for each share of WP held. SP's offer was a share-for-share exchange. WP directors embraced the higher ATSF offer—but Southern Pacific stoutly declares its offer is a fair one, and points out that its purchases of WP stock were all made at prices lower than those at which SP stock was selling on the day of each purchase.

(Stocks involved and recent NYSE closing prices: WP, 26⅞; ATSF, 27; SP, 24⅝.)

While all the scrambling has been going on, WP has gone along its profitable way. President Whitman noted recently that over the first five months of 1961, net income was 33% higher than figures posted for January-May 1960—despite a decline in gross sales this year.

Improved Commuting E-L Goal

Erie-Lackawanna Railroad and the New Jersey State Highway Department, Division of Railroad Transportation, have under way a joint study of methods of improving suburban service in E-L's northern New Jersey commuting territory. The consulting engineering firm, Gibbs and Hill, has been retained for the study, which will include evaluating the possible benefits of extending electrified territory of the former DL&W to former Erie lines.

Merger last October of the Delaware, Lackawanna & Western into the Erie, among other results, created a new road with 40,000 daily commuters in the New York area—23,000 from the Lackawanna, the remainder from the Erie. For the commuters, the merger changed little in the daily routine. Terminal facilities had been coordinated even prior to the merger in DL&W's Hoboken Terminal. Commuter routes —four from the DL&W and four from the Erie—have continued operation as separate and distinct services.

One of the objectives of the newly announced study is to plan a service providing maximum use of Erie-Lackawanna's existing trackage. This could take the form of a rapid transit service in close-in areas. One proposal, discussed as a "pilot project" by state Highway Commissioner Dwight R. G. Palmer, would link the former DL&W Montclair branch with the H&M Railroad's Hudson Tubes and provide through service between Montclair and Hudson Terminal in New York City.

Another proposal under study would extend E-L's electrified territory. At present, suburban service out of Hoboken to Montclair, Dover (via Morristown) and Gladstone is performed by 3,000-volt, direct-current, multiple-unit electric trains on former DL&W routes. A fourth DL&W service, to Dover via Paterson on the Boonton line, is powered by diesel-electrics, as are the former Erie lines: Bergen County (to Suffern, N.Y. and Port Jervis), New Jersey & New York (to Spring Valley, N.Y.), Northern division (to Nyack, N.Y.) and Greenwood Lake division (to Midvale, N.J.). Gibbs and Hill are examining possible benefits from extending electrification to former Erie tracks in Bergen and Passaic counties.

Other recommendations expected to be developed as a result of the study concern the load demand and routing of trains, as well as the most economical and practical type of propulsion equipment. Committees from both the railroad and the Highway Department have been at work for some time assembling data on present service, population and growth trends. Results of the study are expected to be announced this fall.

David F. Jones
L&N

P. L. Cowling
Milwaukee

Charles T. Williams
M K T

T. S. Carter
M K-T

William G. Miller
Alco

Paul W. Campbell
Travelift

PEOPLE IN THE NEWS

BALTIMORE & OHIO.—Joseph E. Parker, district freight agent, named assistant general freight agent and **Charles M. Meese** appointed district freight agent, both at Baltimore, Md. Mr. Meese has been freight representative since 1939.

The following changes announced in the Personnel Department: **Thomas S. Woods,** assistant manager labor relations, named manager labor relations — non-operating; **William A. Harris,** assistant manager labor relations, appointed manager labor relations —operating; **Matthew H. Bradway,** director of training, appointed manager personnel. **Frank J. Goebel,** vice president—personnel, and **Clarence H. Holtzworth,** manager personnel, have retired.

CANADIAN NATIONAL.— D. W. Hamilton, transportation assistant — passenger train operations, Great Lakes Region, named passenger sales manager. For reasons of health, **N. A. Landerman** asked to be relieved of the administrative responsibilities attached to the position. He has become associate passenger sales manager.

CANADIAN PACIFIC.—W. G. Wright named manager, mail and baggage traffic in Montreal, succeeding **J. E. Tweedy,** retired.

ELGIN, JOLIET & EASTERN.—R. E. Garren appointed superintendent and **H. J. Paletz,** assistant superintendent, Gary division, Gary, Ind. **R. D. Adamson** named assistant superintendent, Joliet division, Joliet, Ill. **C. O. Ferner** appointed trainmaster, Gary Mill division, Gary.

ERIE-LACKAWANNA.—John A. Craddock appointed superintendent, Kent division, Marion, Ohio.

JERSEY CENTRAL.—General offices will be consolidated in the Jersey City terminal area effective July 24. The executive, law, treasurer's, freight traffic, industrial development, and public relations offices will move from 143 Liberty Street, New York City. The law department will maintain a New York office in addition to its Jersey City headquarters in the JCL ferry terminal at the foot of Liberty Street.

LOUISVILLE & NASHVILLE.—David F. Jones, assistant manager, piggyback traffic, named manager, piggyback sales and service. **Curry E. Thomas,** traveling freight agent, Cincinnati, appointed assistant manager, piggyback sales and service.

MILWAUKEE.—P. L. Cowling, assistant to vice president-traffic, Chicago, appointed assistant to president there.

LeRoy B. Raper, traveling freight and passenger agent, Dallas, Tex., named general agent there, to succeed **John G. Hatcher,** retired.

William R. Jones, assistant superintendent of the sleeping and dining car department, appointed superintendent of that department, with headquarters at Chicago, succeeding **M. P. Ayars,** retired.

MISSOURI-KANSAS-TEXAS.—Charles T. Williams, vice president and general manager, elected executive vice president and a director. **L. R. Deavers,** assistant chief engineer, appointed chief engineer, replacing **T. S. Carter,** advanced to vice president-operations.

SEABOARD.—W. E. Holland, Jr., appointed special assistant to general purchasing agent, Richmond, Va., succeeding **T. M. Sweeny,** deceased. **T. M. Callahan** named office assistant to general purchasing agent, Richmond. The position of stationery supervisor has been abolished and stationery matters will now be handled by **R. M. Hamby,** storekeeper, Richmond.

WABASH.—Eldon W. Grimes, chief clerk in the sales office, Birmingham, Ala., appointed sales representative, Cincinnati.

J. R. Baldwin, assistant engineer, Decatur, Ill., named mechanical engineer there, to succeed **R. N. Foster,** retired.

Supply Trade

William G. Miller has been elected executive vice president of **Alco Products, Inc.** A director of Alco since 1959, Mr. Miller had been vice president in charge of the company's thermal and petroleum industry equipment groups since 1960. He was president of Montreal Locomotive Works, Ltd., Alco's Canadian affiliate, from 1954 to 1960.

Paul W. Campbell will be manager in charge of Railroad Products, a new division of **Travelift,** a division of **Drott Mfg. Corp.,** Sturgeon Bay, Wisc. Mr. Campbell was formerly manager of eastern railroad and container sales for **Trailmobile.**

R. A. Prokop has been appointed product manager, maintenance and railway finishes, **DeSoto Chemical Coatings, Inc.,** at Chicago. Mr. Prokop will coordinate the marketing and technical phases of industrial maintenance finishes and railroad and marine finishes. He was formerly sales manager, Carolina division, Greensboro, N.C.

Arthur F. Ochtman has retired as manager of Engine Engineering at the Harvey, Ill., Works of **Allis-Chalmers Mfg. Co.**

Vincent C. Dinnean succeeds **Joseph F. Higgins** as traffic manager of **Olin Mathieson Chemical Corporation's Winchester-Western Division,** New Haven, Conn. Mr. Higgins has retired.

OBITUARY

James C. Mock, 95, who retired as signal and electrical engineer of the **Michigan Central** in 1937, died July 7 at his home in Detroit. Mr. Mock was president of the Railway Signal Association in 1904-05.

J. F. Ryan, retired vice president, **Railway Truck Corp.,** died July 5 at his home in Orlando, Fla.

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You Ought To Know...

A $35-million bond issue to finance a tunnel-improvement program for the city-owned Cincinnati Southern Railway (and thus permit the road to handle piggyback and auto-rack-car traffic) has been recommended by the Cincinnati City Council's Finance Committee. Program calls for elimination of nine tunnels, rebuilding of three, and enlargement of one. The road is leased to the Cincinnati, New Orleans and Texas Pacific Railway Co., part of the Southern System.

General walkout on New York subways is under consideration by the Transport Workers Union if the Transit Authority goes ahead with its plan to run automated trains. NYCTA has announced plans to put a Grand Central-Times Square shuttle train into automatic, crewless operation late in September.

Rock Island coach passengers can now occupy parlor car space for coach fare plus the regular seat fare. R. E. King, general passenger traffic manager, said the six-month experimental plan was begun "to meet the policy of many firms which have directed their representatives to use only coach accommodations on trains and planes, and we hope to improve our rate of occupancy, thus utilizing both coach and parlor cars to the greatest extent possible."

A track inspection car, produced in Switzerland by Alfred J. Amsler & Co., will be marketed and serviced in the U. S. and Canada by National Cylinder Gas Division of Chemetron Corp., Chicago. The car simultaneously measures and records gage, cross level, gradient, twist, curvature and distance. NCG will also market a small, manually propelled track inspection unit for local measurement work.

A reduced rate on bituminous coal for a large manufacturer is to be published by the Reading and one of its connections. It will be similar to "conditional" volume rates on public utility coal, which permit a reduction if specified tonnages are received during a stated period, but will differ in two respects: 1) it will apply to a non-utility receiver; and 2) it will cover all tonnage received, provided a 100,000 net ton minimum is reached during the year. If approved by the ICC, the rate is expected to return to the Reading annually about 120,000 tons of coal which had been lost to oil.

An operating budget of $1,237,436 for the 1961-62 fiscal year has been approved by directors of the San Francisco Bay Area Rapid Transit District. The amount will be required to finance the district's planning and administrative activities. Largest single item is $515,000 for engineering services —of which $213,500 will be utilized to carry out a transit-development program.

Construction of a $44.6-million rapid transit system for Camden, N.J.—Philadelphia area commuters is awaiting the approval of N. J. Gov. Robert B. Meyner. The Delaware River Port Authority is reported ready to proceed with the project, and Pennsylvania Gov. David Lawrence is said to be ready to endorse the plan. No legislative approval is required. Plan calls for use of Pennsylvania-Reading Seashore Line's rights-of-way and the Locust Street subway tracks in Philadelphia.

Alco's status in the world locomotive market is "better today than it has been since the advent of the diesel-electric," Chairman P. T. Egbert and President W. S. Morris have told shareholders. Alco is winning "a substantial percentage of present business from overseas railroads in the face of strong world-wide competition" and "railroads in the United States are becoming increasingly aware that Alco locomotives can improve their operations," said the executives. Outlook: the overseas market has "vast potential" and the domestic market "holds promise," despite depressed conditions.

First-quarter results of Philadelphia's Passenger Service Improvement Corp. indicate that the city-sponsored commuter operations are saving $15 million that would otherwise be needed for highway construction. This is the report of PSIC President Casimir Sienkiewicz, who says the six routes involved carried 1,764,791 passengers in January, February and March, up 17% over 1960.

Vigorous action is required to tame the hazards of fire in motor-carrier accidents, ICC Vice Chairman Rupert L. Murphy has told the trucking industry. Mr. Murphy's action followed an ICC report that fire, when present in truck accidents, causes a 200% increase in the death toll and a 400% increase in property damage.

Feuding is a luxury common carriers "can no longer afford," a former railroad man now in the trucking field told a Stanford University Transport Management Program audience. William G. White, formerly vice president—operations of the Lackawanna, now president of Consolidated Freightways, said railroads and truckers "can ill afford to expend their efforts fighting each other. Instead they should look carefully at the very serious problems all common carriers face and use their best efforts in their solution."

Port of New York Authority's cumulative investment in 22 public terminal and transportation facilities in the New York-New Jersey port area rose to $1,012,540,000 in 1960—an increase of $92,291,000 over 1959.

New chairman of the National Mediation Board is Leverett Edwards. Under the board's plan of rotating its chairmanship on the fiscal-year basis, he took over July 1 as successor to Francis A. O'Neill, Jr. Mr. O'Neill remains a member of the board, whose other member is Robert O. Boyd.

Abandonment of the entire 18.6-mile line of the East Jordan & Southern Railroad has been authorized by the ICC. The line runs between East Jordan and Bellaire, Mich.

OUR FACE IS RED!

The General Signal Company advertisement on the back cover first appeared in the May 22, 1961 issue. On some copies—we hope it wasn't yours—the red ink didn't print properly. As a result—and quite accidentally—we misrepresented the manner in which the traces show on the GRS Wheel Thermo-Scanner tape. Sorry, readers. Sorry, GRS. We are showing it right this time. Look at the back cover and see for yourself.

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by George N. Daffern

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- **Should management training be slanted toward improvement of the individual? or improvement of the job being done?**
- **How can a performance appraisal procedure be organized?**
- **Why are some present practices of many industrial managements inadequate to cope with the demands of competition?**
- **On what basis do *you* select personnel for added responsibilities?**
- **Two significant actual case studies, what they show, how to benefit from them**
- **The reasons why management men want to change their jobs**
- **Performance appraisals among middle management in Railroading**

This book has been sponsored by the Railway Progress Institute and was produced under the supervision of the Institute's Committee on Executive Development

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NH an Omen Or a Warning?

The bankruptcy of the New Haven Railroad is not, unfortunately, an isolated instance, unconnected with the situation of the rest of the industry. Instead, the New Haven just happens to be in the vanguard of a number of railroads that are suffering in different degrees from acute starvation.

The misfortune of this one railroad could, in the long run, prove to be an advantage, if it is made to awaken Americans to the transportation crisis that faces them as a result of neglect and mistreatment of railroads.

This mistreatment has three aspects—over-regulation, over-taxation, and under-promotion (as compared with the promotional activities of government in behalf of other forms of transportation). Can government be induced to correct this situation soon enough to prevent other major railroads from going down the drain as the New Haven has? There is hardly any more important question than this for responsible statesmen to answer. If the country, with a seriously weakened railroad system, should become involved in war there would not be enough fuel and manpower left over, after carrying on military operations, to provide the required supporting transportation service, by other kinds of transportation.

Events are moving faster and faster, these days. Adverse conditions, that formerly could be corrected gradually over a term of years, now have to be dealt with promptly. Galloping consumption cannot be cured by leisurely medication, or none at all. The railroad situation cannot wait another whole year, for another session of Congress, to witness a resolute beginning toward correcting the industry's over-regulation, over-taxation, and unequal promotion.

The Interstate Commerce Commission—at long last—appears to be deeply impressed with the necessities of the situation. This responsible attitude was reflected in its favorable decision in the Plan III and IV piggyback cases, commented on here last week. We regret that we erroneously ascribed to Commissioners Murphy and Herring a highly pertinent concurring expression by Commissioner Walrath, in which he questioned the effort to observe traditional "classification principles" in competing with private transportation.

Indeed, the concurring opinion by Commissioner Murphy, in which Commissioner Herring joined, raises a question which needs critical examination. That is, these two Commissioners strongly support the limitation against according Plan III or IV service to a single commodity. They are fearful lest the absence of this limitation may invite "wholesale diversion" of box-car traffic to piggyback movement.

There are plenty of railroad men who entertain the same fears—and the only way to allay such misgivings is to *make sure that all box-car rates are just as competitive with truck transportation as the piggyback rates are*—with due regard, of course, for the relative cost of box-car movement.

A number of railroad traffic executives have been working on the problem of devising some form of "incentive discount" to make the average cost of box-car transportation considerably more economical to shippers. One territory (the South) has a broad program in effect, with this objective.

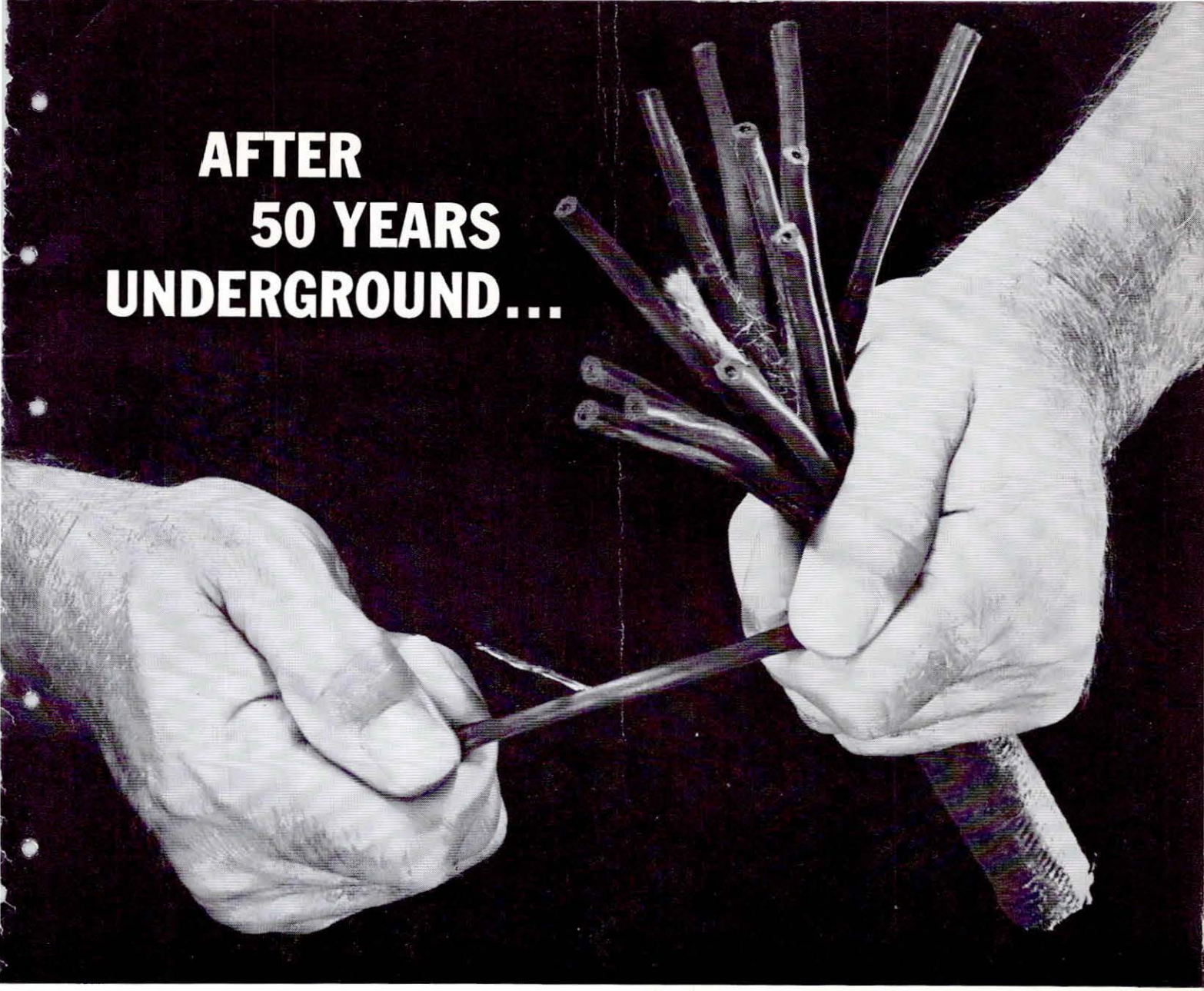
It isn't only in more economical rates (more profit to the carrier and lower per-hundredweight charges to the shipper) that box-car traffic needs attention. It also needs more concern from the standpoint of service. Probably more time is required, on the average, to get a shipment from shipper to consignee by box-car movement than by piggyback, but there is no good reason why the movement, though necessarily slower, should be any less reliable.

What railroads must have, to survive and grow as private enterprise, is more traffic (with a safe profit margin, of course). As high-rated traffic dwindles—either through diversion or rate reductions necessitated by competition—the securing of increased tonnage of more moderately profitable traffic becomes imperative. The investigation, begun by some of the coal-carrying railroads, into the possibilities of greater economies in the movement of large-volume traffic, may serve to strengthen the railroads' position in the area of bulk commodities—just as attention to box-car and piggyback traffic should help them with the important merchandise tonnage.

TOO LATE FOR LEISURELY ACTION

This problem of getting adequate revenues for railroads, under a regime of private enterprise, is insoluble without drastic improvement in government's regulatory, taxation and promotional policies. It likewise requires all the ingenuity and resourcefulness that railroad leaders can muster (with appropriate publicity), to make their rates and service just as attractive competitively as economics and the law will allow. The greater the sense of urgency and energy the railroads themselves show, the more likely it is that the public and government will catch the wholesome contagion. To other railroads, the New Haven's downfall is not a fateful omen of the inevitable. It does show what has to happen when a sick man gets so much diagnosis and so little treatment.

AFTER 50 YEARS UNDERGROUND...



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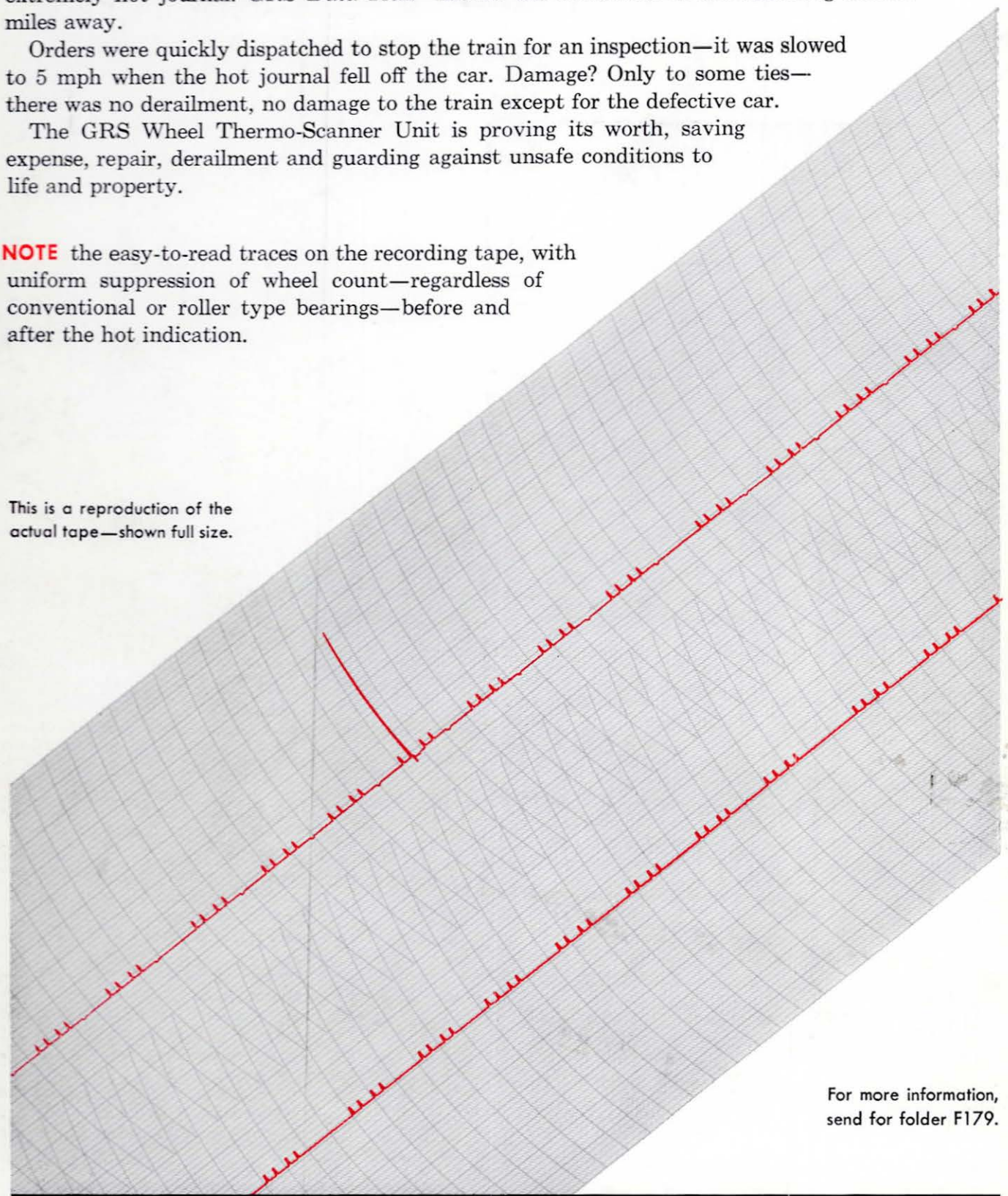

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